



UNIVERSITY

Academic Calendar 2000-01

Fall Quarter 2000

september

5 Tuesday
Classes begin

november

10 Friday
Veterans Day
(offices closed; classes not in session)

14 Tuesday
Last day of classes

16 Thursday
Examinations begin

22 Wednesday
Quarter closing date

Winter Quarter 2001

january

3 Wednesday
Classes begin

15 Monday
Martin Luther King Day
(offices closed; classes not in session)

march

10 Saturday
Last day of classes

12 Monday
Examinations begin

17 Saturday
Quarter closing date

Spring Quarter 2001

26 Monday
Classes begin

may

28 Monday
Memorial Day
(offices closed; classes not in session)

june

2 Saturday
Last day of classes

4 Monday
Examinations begin

8 Friday
Annual Graduate Commencement

9 Saturday
Quarter closing date

Summer Quarter 2001

18 Monday
Classes begin for first session

july

4 Wednesday
Independence Day
(offices closed; classes not in session)

20 Friday
Last day of classes/examinations for first session

21 Saturday
First session closing date

23 Monday
Classes begin for second session

august

24 Friday
Last day of classes/examinations for second session

25 Saturday
Second session closing date

Schedule of Academic Fees (Graduate)

Hours	Ohio Resident	Nonresident
1	\$ 252	\$ 484
2	504	968
3	756	1,452
4	1,008	1,936
5	1,260	2,420
6	1,512	2,904
7	1,764	3,388
8	2,016	3,872
9-18	2,032	3,905
Add'l hours	142	280

Auditors pay fees in full as above.

Note

Fees are effective fall quarter 2000. Fees are subject to change without notice. Dates are necessarily subject to change at the discretion of the Ohio University Board of Trustees.

Graduate Council

Faculty

Margret Appel, Ph.D., Arts and Sciences
Joseph Bernt, Ph.D., Communication
Mehmet Celenk, Ph.D., Engineering and Technology
Peter Harrington, Ph.D., Arts and Sciences
Kenneth Hicks, Ph.D., Fine Arts
Rajindar Koshal, Ph.D., Arts and Sciences
Jenny Lau, Ph.D., Fine Arts
Michael Maume, Ph.D., Arts and Sciences
Bhavin Mehta, Ph.D., Engineering and Technology
Averell Overby, Dr. P.H., Health and Human Services
Edwin Rowland, Ph.D., Osteopathic Medicine
Arvind Singhal, Ph.D., Communication
Scott Sparks, Ph.D., Education
Edward Yost, Ph.D., Business

Student Representatives

Larisa Zelenskaya
James Edward Bush
Michael Meyer

Administrators

Maureen Weissenrieder, Arts and Sciences
Daniel Innis, Business
Raymie McKerrow, Communication
Glenn Doston, Education
Roger Radcliff, Engineering and Technology
Jessica Haigney, Fine Arts
Leona Cibrowski, Health and Human Services
Josep Rota, International Studies
Bobbi Conliffe, Osteopathic Medicine
Julia Zimmerman, University Libraries

Ohio University Graduate Catalog 1999–2001

The fees, programs, and requirements contained in this catalog are effective with the 1999 fall quarter. They are necessarily subject to change at the discretion of Ohio University. It is the student's responsibility to know and follow current requirements and procedures at the departmental, college, and university levels.

Ohio University is an affirmative
action institution

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Ohio University Mission Statement

Ohio University is a public university providing a broad range of educational programs and services. As an academic community, Ohio University holds the intellectual and personal growth of the individual to be a central purpose. Its programs are designed to broaden perspectives, enrich awareness, deepen understanding, establish disciplined habits of thought, prepare for meaningful careers and, thus, to help develop individuals who are informed, responsible, productive citizens.

Undergraduate Education

Ohio University offers undergraduate instruction on both the Athens campus and the regional campuses. Undergraduate programs, designed to contribute to intellectual and personal development and career goals of students, emphasize liberal studies.

Undergraduate major programs, preprofessional, and professional programs prepare students for employment in a variety of careers and for continued study. Two-year technical and associate's degree programs, reflecting employment opportunities as well as the general career interests of students, are taught primarily at the regional campuses.

At the Athens campus, instruction is combined with residence life and other extracurricular programs in an effort to create a collegiate experience integrating learning and living.

Graduate and Professional Education

Ohio University offers graduate and professional education. The primary forms of activity are advanced and specialized courses of study, supervised practical experience, and research.

The essential concentration of faculty, material, and space resources dictates that the activity associated with graduate and professional education will be centered on the Athens campus. This activity is not limited to that campus; research and instruction are carried out at various locations.

Scholarship, Research, and Creative Activity

Ohio University is a center for scholarship, research, and creative activity involving the creation, testing, and dissemination of knowledge, understanding, expressions, and technique.

As a public university, Ohio University has a particular responsibility to address societal issues and needs through such scholarship, research, and creative activity. The scholarly and artistic activity of the faculty enhances the teaching function at all levels of the student experience.

Extended Community

Ohio University serves an extended community. The public service mission of the university, expressed in such activities as public broadcasting and continuing education programs, reflects the responsibility of the university to serve the ongoing educational needs of the region. The regional campuses perform a critical role in serving this extended community.

The university has state-wide responsibility for an extended university program using independent study through correspondence.

It is the purpose of these extended university programs to serve a diverse range of educational needs, from professional groups requiring continuing courses of study related to the practice of their professions, to individuals desiring occasional or special interest study.

By service to the extended community, Ohio University contributes to cultural and economic development, health care, and to other human services.

Adopted January 15, 1977, and reaffirmed January 1988.

A Commitment to Diversity

Ohio University is committed to promoting an atmosphere where understanding and acceptance of cultural and racial differences are ensured.

As President Robert Glidden stated in his 1995 State of the University Address: "A commitment to academic excellence carries with it the responsibility of seeing to it that Ohio University is a just and diverse community—that everyone who comes here has an equal opportunity to develop his or her talents to the fullest. Education is not well served by homogeneity; it is diversity that enriches learning and diversity that prepares our students for the realities of the world—especially the world of the future. We need to find more ways to engage the full range of abilities of all our people, and we need especially to attend to changes that will promote recognition and appreciation of accomplishments by women and minorities so that all persons in the university are equally respected and empowered."

Ohio University is bound morally, emotionally, and intellectually to pursue the realization of a vision of real community. As a result, it is committed to equal opportunity for all people and is pledged to take direct and affirmative action to achieve that goal. In upholding its commitment, Ohio University will not tolerate racism, sexism, homophobia, bigotry, or other forms of violations of human rights. Such actions are inconsistent with, and detrimental to, the values that we hold essential as an institution of higher learning. All students, faculty, and staff of Ohio University are expected to uphold the university's commitment to a just and diverse community and to take a leadership role in ensuring an atmosphere of equality.

Inquiries

The university switchboard number is 740-593-1000.

Admission

Office of Graduate Student Services, Wilson Hall
Telephone 740-593-2800

Continuing Education, Independent Study, Workshops, and Conferences

Office of Continuing Education, Conferences and Workshops, Haning Hall
Telephone 740-593-1770

Curricula and Degree Requirements

Graduate chair of the appropriate department

Housing

Housing Office, Chubb Hall
Telephone 740-593-4090

Osteopathic Medicine

College of Osteopathic Medicine, Grosvenor Hall
Telephone 740-593-4313, or 1-800-345-1560

Registration, Class Schedules, and Veterans Affairs

Registrar's Office, Chubb Hall
Telephone 740-593-4191

Regional Campuses

Ohio University–Chillicothe
571 W. 5th St., Chillicothe OH 45601
Telephone 740-774-7200

Ohio University Eastern Campus
45245 National Road, W., St. Clairsville OH 43950
Telephone 740-695-1720

Ohio University–Lancaster
1570 Granville Pike, Lancaster OH 43130
Telephone 740-654-6711

Ohio University Southern Campus
1804 Liberty Ave., Ironton OH 45638
Telephone 740-533-4600

Ohio University–Zanesville
1425 Newark Road, Zanesville OH 43701
Telephone 740-453-0762

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Guidelines and General Information

You must be registered in any quarter in which you are receiving any service from the university or using its facilities. Master's degree students must be registered for at least one graduate credit hour, doctoral students for at least two graduate hours.

Profile of Ohio University

Ohio University, established in 1804, was the first institution of higher education in the old Northwest Territory. The total enrollment on the Athens campus is approximately 19,000, while the regional campuses enroll more than 7,900 additional students. The present graduate enrollment is about 2,900, of whom 2,400 are full-time students. The full-time faculty numbers 865. There are more than 335 part-time faculty members and more than 900 graduate associates, graduate staff associates, graduate research associates, and graduate teaching associates.

On the graduate level, Ohio University offers master's degrees in nearly all its major academic divisions and doctoral degrees in selected departments. The College of Osteopathic Medicine offers a four-year professional program leading to the Doctor of Osteopathic Medicine degree.

The city of Athens is located about 75 miles southeast of Columbus. The university offers a wide range of cultural activities not only to the university community, but to all of southeastern Ohio. Lecturers, poets, singers, dancers, films, and theater or music groups appear frequently on campus. Many events are free, though some have nominal charges.

The university is accredited by the North Central Association of Colleges and Secondary Schools and by the recognized professional accrediting associations identified with its major academic divisions. It holds membership in leading state and national educational and professional associations.

The university's academic calendar consists of three quarters of 10 to 12 weeks and a summer session with two 5-week terms.

Application and Admission

To apply, submit to the Office of Graduate Student Services the two application forms, two official transcripts from each postsecondary school attended, official test scores as required by the department, the \$30 nonrefundable fee for application to a degree program, and any other pertinent information in support of your application. Nondegree and transient application is \$20; nondegree-to-degree status, or to a second Ohio University graduate degree program, is \$10. Have letters of recommendation sent directly to the graduate committee of the department to which you are applying.

Copies of the above materials are forwarded by the Office of Graduate Student Services to the department of your choice. The departmental graduate committee grants or denies admission and forwards the decision to the Office of Graduate Student Services. Your file is reviewed for completeness, and a letter is sent to you indicating admission, admission pending fulfillment of admission requirements, or denial of admission.

Admission to graduate study is based on possession of a bachelor's degree from an accredited college or university and such factors as your undergraduate scholastic grade-point average (both overall and in the proposed graduate major), selection of courses, pattern of grades, recommendations, test scores, work experience, and other relevant matters. Each department gives appropriate weight to the factors pertinent to its academic field.

If you have a bachelor's degree from an unaccredited institution, you usually will be required to supplement your undergraduate record with a satisfactory score on an acceptable standard college ability test.*

Supporting evidence of your ability, in the form of the Graduate Record Examination, Graduate Management Admission Test, Miller Analogies Test, or other college ability tests, may be required.* Consult the specific department about necessary test requirements.

Applications for admission, supporting credentials including official transcripts of all academic work, and the \$30 nonrefundable application fee (check or money order payable to Ohio University) should be received at least six weeks before registration for the quarter or summer term in which you wish to begin graduate study. Some programs have earlier deadlines for admission and financial support; see the program listing for deadlines.

All documents received by the university in connection with an application for admission become the property of Ohio University. Under no circumstances will they be returned or forwarded to any agency or other college or university. Documents of students who are admitted to a graduate program but fail to enroll for the quarter for which they are admitted are destroyed. Materials will be held, however, for a maximum of one year if you notify the Office of Graduate Student Services in writing of a postponement of enrollment.

All correspondence pertaining to admission to a graduate program should be addressed to the Office of Graduate Student Services, Ohio University, Athens OH 45701-2979.

Special note for students in education: If you have earned a master's degree in education at Ohio University and plan to take additional work in education, you must reapply for admission through the Office of Graduate Student Services.

*If you have taken any of these tests, you are urged to have your scores reported to the Office of Graduate Student Services, Ohio University, Athens OH 45701-2979. You can obtain further information about the Graduate Record Examination or the Graduate Management Admission Test by writing to the Educational Testing Service, Box 955, Princeton NJ 08540. Applicants in the West Coast region should write to the E.T.S., Box 1502, Berkeley CA 94701. On the Ohio University Athens campus, you can obtain test application forms from the Office of Graduate Student Services. You can obtain information on the Miller Analogies Test (MAT) from The Psychological Corporation, 304 E. 45th St., New York NY 10017. The MAT is available at Ohio University through Counseling and Psychological Services, Hudson Health Center.

Categories of Admission

Ohio University has four categories of graduate student admission: degree, nondegree, postbaccalaureate, and transient.

Any admission to a graduate program must be regarded as provisional until you have provided a final official transcript from your undergraduate institution showing receipt of the bachelor's degree, and transcripts from any other postsecondary school attended. You should submit transcripts before you are admitted to a program, but if this is not possible it is your responsibility to see that final official transcripts are on file in the Office of Graduate Student Services no later than the end of your first quarter of registration in a graduate program. Failure to produce final transcripts may result in dismissal.

Degree

Unconditional Admission. Students approved by the major department for unqualified admission to a graduate degree program are given unconditional admission. Only students on unconditional admission status are eligible for university-funded associate-ships, fellowships, and tuition scholarships.

Conditional Admission. Students who have some deficiency in the entrance requirements, such as a grade-point average below 2.5, may be approved by the department for conditional admission. Students in this category may achieve unconditional admission by satisfactorily completing a prescribed program to remove any academic deficiencies and attaining a 3.0 or better grade-point average on the first 15 hours of graduate course credit. The departmental graduate committee will specify whether undergraduate courses required as further preparation for admission will be taken for audit or credit. Grades

earned in such courses may be used by the graduate committee in evaluating your capability for graduate work. Undergraduate or audited courses will not satisfy requirements for any graduate degree. You are eligible for university-funded associateships, fellowships, and scholarships only after you have received unconditional admission. You must maintain a 3.0 or better grade-point average to retain university financial support.

Nondegree

To take graduate courses if you have no intention of working toward a graduate degree at Ohio University, apply for admission in the regular manner but as a nondegree student. Approval for such admission does not constitute admission to a degree program, and the credit earned cannot normally be applied toward a graduate degree at Ohio University. In exceptional cases the appropriate academic department will determine which courses, if any, that you take while in nondegree status may be applied subsequently toward degree requirements.

You may take no more than 18 hours of academic work, within a time limit of six years, as a nondegree student.

Postbaccalaureate

This status is applicable to the regional campuses for all quarters and to the Athens campus for summer only. The conditions of postbaccalaureate admission are the same as for nondegree graduate status:

(a) admission status terminates after completion of 18 graduate hours, (b) admission to nondegree status does not constitute admission to a graduate degree program, and (c) credit earned cannot normally be applied toward a graduate degree at Ohio University. Some graduate courses are not open to students admitted to postbaccalaureate status. If in doubt about the acceptability of postbaccalaureate status for a specific course, check with the department offering the course.

Transient

A student currently working toward a graduate degree at another university may earn graduate credit at Ohio University to be transferred to the other university.

You may be admitted to a transient status by submitting an application, the \$20 nonrefundable application fee, and an official statement of good standing from the dean of the graduate school in which you are enrolled.

You must request permission each quarter to register at Ohio University as a transient student.

Undergraduates Taking Graduate Courses

Except for Honors Tutorial students and those who meet the conditions listed below, no undergraduate student may take a graduate course for credit.

Senior for Graduate Credit

An Ohio University student who has not yet completed all requirements for the bachelor's degree may be eligible for graduate study as a senior. This privilege is normally granted for one quarter only. You must have an overall grade-point average of at least 2.5 and be within nine credits of completing all requirements for your bachelor's degree. Permission to take such courses does not constitute admission to a graduate degree program. (See the following section for information on early admission to a graduate degree program.)

You may take graduate courses carrying graduate credit after securing the written recommendation of the dean of your undergraduate college and the graduate chair of the departments offering the graduate courses. If you are admitted as a senior for graduate credit, you pay undergraduate fees and are not eligible for graduate associateship or scholarship support. A \$10 application fee is charged for this

privilege, and you must apply in advance of registration through the Office of Graduate Student Services. This privilege may also be extended to a well qualified senior at another university who has nine or fewer credits to complete for the bachelor's degree.

Early Admission to a Graduate Degree Program

A superior undergraduate student may seek early admission to a graduate degree program. You must have an overall grade-point average of at least 3.5 and have completed all undergraduate requirements, except the total credit-hour requirement, by the time of your entry into the graduate degree program. After obtaining the written recommendation of your department, the departmental graduate committee, and the dean of your undergraduate college, you may be admitted into a graduate degree program and enroll in graduate courses for graduate credit. You can use these courses to satisfy both graduate degree requirements and undergraduate total credit-hour requirements. You must apply for this privilege in advance of registration through the Office of Graduate Student Services. If you qualify for early admission to a graduate degree program, you are eligible for graduate associateship or scholarship support.

International Students

To be eligible for admission, international students must have attained high scholastic distinction.

Materials required for admission to Ohio University are the two application forms, the \$30 nonrefundable application fee, official test scores as required by the department, official transcripts from each postsecondary school attended, and any other pertinent information in support of your application. If transcripts are not in English, they must be translated and signed and certified as true copies by the registrar of the institution or an official of the country's consulate. You should submit transcripts before you are admitted to a program, but if this is not possible it

is your responsibility to see that final official transcripts are on file in the Office of Graduate Student Services no later than the end of the first quarter of your program. Failure to produce final transcripts may result in dismissal.

All prospective students whose native language is not English must submit evidence of proficiency in the English language. You must send results of the Test of English as a Foreign Language (TOEFL) to the Office of Graduate Student Services.

It is recommended—required by some departments—that you score 550 or above on the paper TOEFL, or 213 or above with essay of 5 or above on the computer TOEFL. If you achieve scores this high or higher, you might not have to study English before being admitted as a full-time graduate student. A score of 510–549 on the paper TOEFL, or 180–212 with essay of 4 or above on the computer TOEFL, indicates that you will need to take at least one quarter of part-time English study; a score of 450–509 on the paper TOEFL, or 133–179 with essay of 3.5 or above on the computer TOEFL, indicates that two or more quarters of English study may be necessary; and a score of 449 or below on the paper TOEFL, or 132 and below on the computer TOEFL, indicates that at least three quarters of intensive English may be required.

You are required to be tested by the Ohio Program of Intensive English (OPIE) to determine your level of proficiency. This on-campus test is the criterion for English proficiency evaluation regardless of other test scores that you may have submitted with your application materials. The results of this test will determine if you will be required to take English courses in the Ohio Program of Intensive English.

Only after you have passed the on-campus English proficiency test or satisfactorily completed the Ohio Program of Intensive English and enrolled in your graduate program are you eligible for Ohio University–funded associateships, fellowships, and scholarships.

To be considered for a teaching stipend, all prospective international graduate students who will be responsible for classroom or laboratory instruction and whose native language is not English must submit their scores on the Test of Spoken English (TSE; Educational Testing Service, Princeton NJ, 1982). You must score 6 on the TSE to be offered a teaching stipend. In addition to the TSE, you must take the SPEAK test after you arrive at Ohio University if you are offered a stipend that requires instructional responsibility.

International applicants must submit evidence of the financial responsibility that is stated on the Affidavit of Financial Support. In the event that you receive a university-funded associateship, fellowship, or scholarship upon admission, that financial assistance will be cancelled if you do not demonstrate English proficiency after being tested by the Ohio Program of Intensive English upon your arrival at Ohio University.

The Immigration and Naturalization Service requires that international students, while in the United States, be full-time students in the first three quarters after arrival. You may then take a vacation in the next quarter as long as you intend to register in the quarter after the vacation. You must be making reasonable progress toward the completion of your degree. In the event that a problem should arise with enrollment, you are required to consult with your advisor and the international student advisor.

Faculty and Administrators

All Ohio University faculty and administrators on full-time presidential contract, except senior administrators (vice presidents, vice provosts, associate provosts, and deans), are eligible to apply for admission to a graduate program or to nondegree status. The associate provost for graduate studies and the Graduate Council will review all

applications for potential conflict of interest. If the Graduate Council determines that a conflict exists, the faculty member or administrator shall not be admitted to a graduate program. It is the responsibility of the vice president for research and graduate studies to see that this review takes place at the earliest possible date.

If you are a full-time faculty member or full-time administrator at Ohio University who is admitted to a degree program or to nondegree status, you may normally register for no more than eight hours per quarter. To register for 9 or 10 hours, you must have written approval from the graduate chair of your academic program and from the administrative supervisor for your employee position. You may not receive a graduate stipend. Course loads taken during breaks in regular employment, however, such as summers for nine-month faculty, will be limited only by *Graduate Catalog* regulations. See the stipulations regarding residency requirements in this catalog and the *Policy and Procedure Manual*, No. 40.015.

If you are currently in a graduate degree program and are offered a presidential contract appointment, your situation will be reviewed by the vice president for research and graduate studies and the Graduate Council at the earliest possible date. The Graduate Council will determine whether conflict of interest or unfair competition would result from your dual status as a student and a presidential contract employee that might affect your academic performance and evaluation. If the Graduate Council determines that such a conflict would exist, they will inform you that you may not continue in your graduate program if you accept the presidential contract appointment.

It is your responsibility to notify the university of your employment on the Graduate Admissions Application. If you are a current graduate student and are offered a presidential contract appointment, it is your responsibility to notify the associate provost for graduate studies of that appointment.

Schedule of Fees

Payment of all assessed fees at the times designated is prerequisite to official enrollment. Checks and money orders should be made payable to Ohio University in the exact amount of the fees. Postdated checks are not acceptable. Checks not paid upon presentation to the bank will automatically cancel any receipts given and result in assessment of penalties. It is important that you retain all fee receipts.

Ohio University reserves the right to make, without prior notice, any fee adjustments that may become necessary. Graduate students carrying more than eight hours are eligible for the Monthly Payment Plan, which equalizes the academic year's fees into nine monthly payments.

Registration Fees

The comprehensive registration fee covers the instructional fee, general fee, and a tuition surcharge for nonresidents. See the inside front cover for the schedule of registration fees.

Insurance

If you register for seven or more credits, you are required to carry student insurance or other comparable health insurance.

Refund of Fees

The official university policy on the refund of registration fees is (1) official withdrawal from the university prior to the first day of classes entitles you to a refund of 100 percent; (2) withdrawal from the university during the first 15 days of the quarter (see the academic calendar) entitles you to a refund of 80 percent if fees were paid in full. If you are on the Monthly Payment Plan, you will have incurred a charge of 20 percent of registration fees with this amount being subtracted from your registration payments to determine the refundable amount; (3) withdrawal from the university after the first 15 days of classes entitles you to no refund; (4) any student withdrawing from the university while owing the university money is considered to be indebted to the university for that amount.

Miscellaneous Fees*

Admission application filing fees	
\$30	For a degree program
\$20	For nondegree, workshops, transients
\$10	For nondegree-to-degree status
\$10	For change of major or second master's
	Late registration fee (check quarterly <i>Schedule of Classes</i>)
\$5	Duplicate official forms, fee receipts, bill statements, grade reports, etc.
\$45	Application for master's degree
\$50	Application for doctoral degree
\$5	Reapplication for master's or doctoral degree
\$5	Transcript of record

*These fees are nonrefundable and subject to change without notice.

If you drop hours by change order prior to or during the first 15 days of the quarter, when such changes result in a reduction of fees, you are entitled to receive a 100 percent refund of the reduction. Changes made after the 15th day of the quarter will result in no refund. Refunds are issued 30 days after the date of withdrawal from the university. Refer any questions to the Registrar's Office.

Ohio Residency Guidelines

Since Ohio University assesses your tuition costs based on your status as an in-state or out-of-state resident, the following general information is included to help you determine your residency status. The complete policy on Ohio residency is included for your reference in the appendix at the back of this catalog.

In general, you pay in-state tuition if you are a permanent resident of Ohio, which means that you—or your parent(s) or guardian(s) if you're a dependent—have lived in Ohio for 12 consecutive months or more preceding your enrollment at Ohio University. Evidence of Ohio residence includes proof that: (1) you (or your parents or guardians) are subject to Ohio state tax liability; (2) you (or your parents

or guardians) are registered to vote in Ohio; (3) you (or your parents or guardians) are eligible to receive Ohio state welfare benefits; or (4) you (or your parents or guardians) possess an Ohio state driver's license and/or motor vehicle registration.

It is your responsibility to report a change of address and/or residency from an Ohio resident to a non-Ohio resident at the Office of Student Records. If your residency has changed to an Ohio resident, you must file a residency petition with the Office of Graduate Student Services. No change of residency can be made until the residency petition has been approved by the assistant provost for graduate studies. You may direct questions concerning residency to the Office of Graduate Student Services.

Financial Aid

The two major forms of financial support for graduate students are associateships and tuition scholarships. These are granted by the individual schools or departments, and application for this financial assistance is made as part of the application (see application forms included in the back of this catalog).

Graduate Appointments

More than 900 graduate, staff, research, and teaching associateships are available for graduate students at Ohio University. Students who wish to pursue a master's or a doctoral degree are selected for these appointments on the basis of scholarly merit.

Graduate contracts normally become effective the first day of each quarter and end on the official closing date of the quarter. Individual schools or departments may, at their discretion, request that newly appointed associates report for orientation up to a week prior to the beginning of the quarter.

The associateship provides a stipend for services as prescribed by the individual school or department and generally requires an academic course load of 15 graduate credits a quarter. In no case will the requirement be less than nine graduate hours. The associateship usually includes a scholarship for the length of the contract. The stipends vary from academic area to academic area, but generally range from \$5,900 to \$11,000 for three quarters (i.e., from September to June) and \$8,000 to \$14,000 for a 12-month appointment. Contact the individual school or department for details on associateships and scholarships.

Graduate associates fulfill academic responsibilities and service as prescribed by the school or department. The service usually entails administrative, teaching, or research duties performed for and under the supervision of a faculty member.

Graduate staff associates engage in duties varying from residence hall directorships to service in the library and university administrative offices. These appointments are not funded from academic department resources.

Graduate teaching associates carry teaching responsibilities as prescribed by the school or department.

Graduate research associates engage in work on research projects as prescribed by the school or department.

Appointment of graduate resident directors and graduate assistant resident directors are made on the recommendation of the director of residence life and are available to single or married men and women. Compensation includes a furnished apartment and board (when the dining halls are operating) for the appointee (and for his or her family, if applicable) and a stipend of \$9,600 plus a tuition scholarship for graduate resident directors. Graduate assistant resident directors will have the same compensation and a stipend of \$5,600 plus a tuition scholarship. The appointment requires payment of the general fee and recreational facilities fee each quarter. The graduate resident director and graduate assistant resident director supervise functions of the residence hall. Apply for these appointments by letter and submission of your vita to the director of residence life.

Tuition scholarships may be available for the summer quarter to students who have an associateship for the spring quarter preceding or the fall quarter following the summer quarter. You must carry a course load of 15 hours and pay the general fee for summer quarter.

The associateship will be discontinued if your grade-point average as a graduate student at Ohio University falls below 3.0 (on a 4.0 scale). Some schools or departments require a higher average.

The graduate associateship may be discontinued if duties are not performed satisfactorily as defined by the immediate supervisor or department/school.

Graduate students seeking continuation of stipend support must follow all departmental policies and procedures pertaining to renewal of that support. Additionally, Graduate Council guidelines state that graduate students holding graduate appointments written for an academic year must receive notice of renewal or nonrenewal of that appointment no later than the end of spring quarter. This provision does not apply to contracts terminated early or not renewed for academic or service performance reasons. In such cases, no prior notification is required.

Graduate students holding graduate contracts written on a quarterly basis must receive notice of renewal or nonrenewal of contract at least one quarter before the end of that contract period. Graduate students holding spring quarter appointments must be notified no later than the end of the spring quarter of renewal or nonrenewal for fall quarter. This provision does not apply to contracts terminated early or not renewed for academic or service performance reasons. In such cases, no prior notification is required. Notification on summer quarter appointments can be made as early as practicable.

Time Limits

Time limits for financial support of graduate students through associateships, fellowships, or scholarships are determined by the school or department responsible for the individual program. Generally, the university will not provide financial support if you have enrolled in more than 260 hours of graduate-level credit, defined as graded course credit taken at Ohio University and credit earned for work performed prior to admission to Ohio University. This constraint does not apply to financial assistance provided through research grants or other nonuniversity funding sources.

Traineeships and Fellowships

Ohio University has a limited number of named fellowships such as the Hiram Roy Wilson Fellowships in Biological Sciences, Chemistry, and Environmental and Plant Biology. In addition, the following fellowships are awarded by the associate provost for graduate studies, with the advice of the Graduate Council: the John Cady Graduate Fellowship, the Donald Clippinger Graduate Fellowship, the Claude Kantner Graduate Fellowships, and the Anthony Trisolini Graduate Fellowship. Stocker Fellowships are available in the Russ College of Engineering and Technology. The university also participates in available federal fellowship programs.

The African Studies Program and the Southeast Asia Studies Program at the Center for International Studies offer Foreign Language and Area Studies (FLAS) fellowships to U.S. residents who demonstrate a strong Africa/Southeast Asia career and/or research interest. If the applicant has no previous graduate study, Graduate Record Examination (GRE) scores are required. Interest in applying for FLAS funding should be indicated on the application to the Center for International Studies.

Tuition Scholarships

Tuition scholarships are available in conjunction with an associateship or as a separate award. These are granted on a competitive basis to incoming graduate students who have maintained high undergraduate averages, or to graduate students who have maintained at least a 3.0 graduate grade-point average. These scholarships require full-time study (15 graduate credits per quarter) and payment of the general fee each quarter. Contact the graduate chair of your academic area for information.

Scholarships may be available for the summer quarter to those students who have a scholarship for the spring quarter preceding or the fall quarter following the summer quarter. You must carry an academic course load of 15 hours and pay the general fee for the summer quarter.

The scholarship will be discontinued if your academic average as a graduate student at Ohio University falls below a 3.0 (on a 4.0 scale). Some schools or departments may require a higher average.

Office of Student Financial Aid and Scholarships

Financial aid available to graduate students through the Office of Student Financial Aid and Scholarships consists of loan assistance and employment opportunities.

Need-Based Assistance

To apply for need based aid, complete the Free Application for Federal Student Aid (FAFSA). You will be notified of your eligibility by the Ohio University Office of Student Financial Aid and Scholarships (OSFAS). The need based programs available to graduate students are: (1) the William D. Ford Federal Direct Student Loan, (2) the Federal Perkins Loan, and (3) Federal Work Study. March 15 is the first-priority deadline date that has

been set by the Office of Student Financial Aid and Scholarships (OSFAS) for consideration for campus-based aid—the Federal Perkins Loan and Federal Work Study (FWS). The Federal Perkins Loan and Federal Work-Study are awarded differently than the Federal Direct Student Loans. The funds are sent directly to Ohio University to be awarded to the most needy students by the OSFAS. OSFAS awards the funds directly, and funding for these programs is limited. Late applicants (after March 15) most likely will not receive awards for either the Federal Perkins Loan or Federal Work-Study.

Cost of Attendance

Each year, the Ohio University Board of Trustees determines the fixed costs (tuition and fees, plus an out-of-state surcharge, and room and board rates) for graduate students who live on campus. Variable costs consist of books and supplies, transportation, personal, and miscellaneous expenses. Variable expenses are estimated by the OSFAS and are based on the Consumer Price Index (CPI), survey data of local housing (off-campus apartments), and estimated food costs. Allowances can be made for child care costs for preschool children upon request. You must provide documentation in writing to the OSFAS for individual consideration. The combined fixed and variable costs make up your total cost (budget) for the academic year.

Determining Eligibility

Graduate students are considered independent. You (and your spouse, if you are married) are expected to assist in financing your education costs. Your expected contribution is calculated from your previous year's earnings, untaxed income, benefits, and a percentage of personal savings and assets. The following equation is used to determine financial need:

$$\begin{aligned} & \text{Cost of education (budget)} \\ - & \text{Minus expected student contribution} \\ = & \text{Financial need} \end{aligned}$$

Award Package

After the FAFSA need analysis and other documents have been received and reviewed for accuracy (verified if applicable), an award offer is made to all eligible applicants. The award package can be a combination of gift assistance (fellowships, scholarships, graduate teaching/research associate-ships, etc.), federal loans, and employment to offset costs. Not all students receive all types of aid, but in general, the OSFAS attempts to balance gift aid (grants and scholarships) with self-help aid (employment and loans) while working within the limits of available funds and your eligibility. All gift aid received from all other sources must be reported when applying for the Federal Direct Student Loan. Applying and having your results at Ohio University before the March 15 priority date makes you likely to receive a more attractive package than those who apply later.

Notification of Aid Offers

All applicants who are eligible for aid will receive written notification from the OSFAS. Financial Aid Award Letters will be sent by mail to your permanent address. Applicants who are denied traditional sources of aid are encouraged to continue in the process for consideration for supplemental sources of assistance such as campus employment.

Award Disbursements

Federal aid recipients must be officially enrolled through the Registrar's Office and fulfill all other requirements (financial aid transcripts, verification of the FAFSA data, etc.) before disbursement of aid.

Disbursement of funds will vary depending on the type of financial aid awards you have been offered. The Federal Perkins Loan and Federal Direct Student Loan (FDSL) must have the appropriate promissory notes signed before the aid can be disbursed or checks issued. Federal Work Study awards are not credited to your account because the award must be earned before being paid. You will receive a FWS payroll check every two weeks for the hours worked and approved by the hiring department for the pay period. Total financial aid credits greater than the university charges will result in a refund being generated in the amount of the excess funds. Refunds will be mailed to your local address or direct deposited to your bank account to assist you in meeting other expenses related to your education. Consult the *Schedule of Classes* for more detailed information concerning actual dates of disbursement for each quarter.

All FDSL borrowers must complete a Borrower Information Counseling (BIC) session or complete the requirement through our online services at www-sfa.chubb.ohiou.edu near the completion of their degree.

Eligibility Requirements

All federal campus-based aid and Federal Direct Student Loan graduate recipients must be enrolled a minimum of five graduate credit hours.

All Title IV federal aid recipients must maintain satisfactory academic progress as defined by the OSFAS and the university.

All federal aid recipients must comply with OSFAS procedures for adjusting overawards if the total federal aid received exceeds the financial need.

Satisfactory Academic Progress Standards

Federal regulations require that all financial aid recipients meet Ohio University's satisfactory academic progress standards: (1) minimum credit hours earned for the appropriate enrollment; (2) maximum time frame during which a degree or certificate must be granted; and (3) minimum 3.0 accumulative g.p.a.

Minimum credit hour standards require you to earn a minimum number of hours based on your enrollment status. As a graduate student, the minimum credit hours required are: full-time=nine credit hours, half-time=five credit hours. Maximum time frame standards are determined by your enrollment status. Federal regulations allow a student to be eligible to receive aid up to 150% of the time that it normally would take to complete a degree. For graduate students to remain eligible, they must complete their program by the time their maximum time frame value reaches 9.00 quarters. Also, a 3.0 minimum grade point average must be met by the end of the second academic year (spring quarter) of enrollment.

Student Loans

Student loans are playing an increasingly significant role in financing post-secondary education. Because of the favorable terms and conditions of educational loans, you should not be hesitant to borrow as an investment in your future. On the other hand, loans represent debts that must be repaid, and failure to repay can result in substantial penalties. The federal government has expanded the limits on these vital loan programs to assure that students will have access to and a choice among educational institutions. All applicants for student loans must file a Free Application for Federal Student Aid (FAFSA) to determine their eligibility.

The Federal Perkins Loan (formerly the National Direct Student Loan) is a federal loan for students enrolled in at least five credit hours. Repayment and interest accrual begin nine months after you graduate, leave school, or drop below half-time enrollment as defined by the university. The interest rate is currently five percent, and loans can be included under the loan consolidation provisions contained in the Reauthorization Act of 1992. You must sign a promissory note before your account can be credited or a check disbursed.

The William D. Ford Federal Loan is a federal loan for students enrolled at least half time in a degree-granting or teacher certification program at a participating postsecondary institution. (Those pursuing teacher certification should contact the OSFAS.) All applicants for the William D. Ford Federal Loan must file a Free Application for Federal Student Aid (FAFSA) to determine their eligibility.

The Federal Direct Subsidized Student Loan maximum for graduate students is \$8,500 per academic year. To qualify for the Subsidized Federal Direct Student Loan, you must demonstrate unmet need after other types of assistance, such as tuition scholarships, fellowships, research and teaching associateships, and graduate research associateships, have been considered. You must obtain specific information, requirements, and procedures from the appropriate academic departments. Eligibility is determined by the Federal Methodology need analysis on the FAFSA and must not exceed the difference between the cost of education (budget) minus the expected family contribution and other aid estimated to be made available.

The Direct Unsubsidized Loan may be available if you do not qualify for the maximum Direct Subsidized Student Loan. You are responsible for the interest, and if you choose not to pay the interest while you attend school it will accrue on the loan principal. Interest rates for Direct Subsidized and Unsubsidized Loans are variable and will not exceed 8.25 percent. The interest rate changes annually on July 1 and is equal to the rate on 91-day Treasury Bills plus 3.1 percent.

Graduate students may be eligible to borrow up to \$10,000 in additional Direct Unsubsidized Loans. All loan proceeds are disbursed in equal installments by term. Total financial aid credits minus university charges will result in a refund, which is mailed to your local address.

Loan repayment may be deferred for certain conditions, and loan consolidation is possible under the Reauthorization Act. If you are a first-time borrower, you will receive Entrance Loan Counseling information by mail regarding your rights and responsibilities. You also must complete Borrower Information Counseling (BIC) upon completion of your program or withdrawal from the University.

Ohio University Loans are institutional funds that are made available to students on a temporary basis to provide cash while waiting for disbursement of financial aid or earnings from employment. You must complete a one-page loan application and have it approved before a loan check is issued. If you are in default on previous loans or federal loans, you are not eligible to receive an institutional loan. All borrowers are charged a \$5 processing fee. An interest rate of 9 percent also is charged if your source of repayment is not financial aid. You must have a guaranteed source of repayment within either 30 or 60 days from the time the loan is issued.

Employment Opportunities

Federal Work Study (FWS) is a need-based federal work study program that provides part-time employment for graduate students who need additional financial assistance to attend college. The federal government stipulates that jobs available under the FWS program may not displace presently employed persons or fill regular job openings, including student employment; FWS jobs are therefore used as a supplemental source of assistance. When possible, FWS recipients are placed in positions that coincide with their career interest or academic major. Students are paid at least minimum wage. Most students are eligible to work 10 hours a week and are paid biweekly. If you have been awarded FWS, you will receive your work assignment prior to enrolling at Ohio University.

Centralized Student Employment Services was established by Ohio University to provide job opportunity information for all students in a central location on campus in the OSFAS. The service assists in hiring students for part-time jobs, maximizes employment opportunities and job placement, and coordinates student employment policies and procedures.

The OSFAS serves as an employment clearinghouse for job posting and referrals for all hiring departments at Ohio University (Athens campus) and for private (off-campus) employers as well. When new positions are available or vacancies occur, all employment opportunities for students are posted at www-sfa.chubb.ohiou.edu and on our jobs board. Positions to which students are returning will not be posted.

Graduate Assistance

Recipients of graduate stipends in the form of fellowships, scholarships, and research and teaching associateships will be reported to the OSFAS by the Office of Graduate Appointments. All tuition scholarships will be included as part of the aid package for federal need-based aid, if you are eligible. If you receive a loan for summer quarter and later receive a graduate scholarship, you may be considered overawarded according to federal guidelines. To avoid an overaward, notify the OSFAS of all additional resources (current and estimated, when possible) when applying for the Federal Direct Student Loan. All overawards are adjusted by the OSFAS by reducing the loan first and Federal Work Study as a last resort.

Financial Aid Services

Services are available to students on a daily basis between 9 a.m. and 4 p.m. You also may choose to schedule an appointment with your counselor (counselor assignments are made alphabetically by your last name). Emergencies or schedule conflicts may be accommodated as needed. Some of the services provided by the counselor are confirmation of financial aid for preregistration, review of financial need and eligibility, and review of policies and procedures for different financial aid programs.

Federal regulations and institutional policies are subject to change without notice. The OSFAS will attempt to keep you updated through various media on campus, written notices, or e-mail. It is important that you update your permanent and local addresses with the Registrar's Office and read your e-mail regularly to avoid delays that may be costly.

For more detailed information on financial aid programs, contact us: Office of Student Financial Aid and Scholarships, Chubb Hall 020; telephone 740-593-4141 (9 a.m.–4 p.m.); fax 740-593-4140; e-mail financial.aid@ouvaxa.cats.ohiou.edu; Web <http://www-sfa.chubb.ohiou.edu>.

Academic Policies and Procedures

Standards of Work

Conferral of either a master's or doctoral degree requires at least a B (3.0) grade-point average (g.p.a.). The g.p.a. in formal coursework is computed separately from the average in research, thesis, and dissertation credits to determine eligibility for graduation. A g.p.a. of at least B (3.0) is required in each category. No grade below C (2.0) can be used to satisfy any degree requirement. Departments may establish more rigorous standards.

All graduate students are expected to maintain at least an overall B (3.00) grade-point average on a continuing basis. Should you achieve less than an overall B (3.00) grade-point average, the office of the dean of the college in which you are enrolled will solicit a written statement from your departmental graduate committee to justify your continuation in the program.

Grading Information

Academic work at Ohio University is evaluated on the following grading system: a grade of A equals 4.00; A- equals 3.67; B+ equals 3.33; B equals 3.0; B- equals 2.67; C+ equals 2.33; C equals 2.0; C- equals 1.67; D+ equals 1.33; D equals 1.0; D- equals 0.67; and F equals 0.0.

The basis for determining your scholastic standing is the grade-point average (g.p.a.). This average is determined by dividing the total number of grade points you have earned by the total number of quarter hours of credit you have attempted. For example, if you have earned a B (3.0) and an A (4.0) in each of two five-hour courses, first calculate the number of grade points by multiplying the number of hours in each course by the point value for that grade ($5 \times 3 = 15$ and $5 \times 4 = 20$). Divide the total number of grade points by the number of hours attempted ($35 \div 10 = 3.5$). Your g.p.a. after completing the two courses would be 3.5.

Your g.p.a. is figured only on credit hours in courses for which you receive either letter grades, an FN (failure never attended), or an FS (failure stopped attending). FN and FS have the same value as an F.

The following grades also may be recorded: **Credit (CR)** is usually awarded for satisfactory completion of seminars, research projects, and thesis or dissertation credit. You may receive a grade of **Progress (PR)** in courses that are not yet complete or that extend over more than one quarter. Grades of CR or PR are not used in computing your grade-point average. An **Incomplete (I)** indicates that you have made progress in a course but have not finished the work required to receive a letter grade. These hours are not counted in quarter hours attempted, hours earned, or quality points until a letter grade is reported. If neither a letter grade nor notification from the instructor for an extension of time is received by the Office of Student Records, the I reverts to an F letter grade six weeks into the next quarter you are enrolled. Requests from the

instructor for an extension of time beyond six weeks cannot exceed the end of the next quarter enrolled. Any remaining Incompletes will be calculated as F in determining your eligibility for graduation.

Determination of appropriate use of letter grades, CR, PR, or I is made by the department and is recorded in the Office of Student Records.

A grade of **No Report (NR)** means that the instructor has not submitted a grade or that there has been a processing error. Check with the instructor; if a grade was submitted, go to the Office of Student Records to learn what is necessary to clear up the problem.

An **Administrative Incomplete (I*)** is given by the Office of Student Records when you fail to drop officially a course for which you have registered. Until removed, an Administrative Incomplete is computed as an F in calculating the grade-point average.

WP/WF-Withdrawal Pass/Withdrawal Fail is given when a course is dropped after the 15th day of the quarter. This grade does not count in the g.p.a.

FN-Failure Never Attended is given when you register for a course that you do not attend or officially drop. It counts as an F in your g.p.a.

FS-Failure Stopped Attending is given when you stop attending but do not officially drop a course for which you registered. It counts as an F in your g.p.a.

Removal of FN or FS from the record (treating the course, for tuition and grade purposes, as though it had been dropped by the 15th day of the quarter) requires action by the late course withdrawal review panel.

Master's Degrees

A minimum of 45 graduate credits is required for conferral of the master's degree. You may not have more than 12 credits with a CR grade exclusive of practicum, internship, research, and thesis hours applied to your minimal credit requirements. Additional credits may be required by individual departments. You should develop a program of study approved by your advisor and the departmental graduate committee early in your first graduate quarter to ensure that you satisfy all degree requirements in the most efficient manner possible. Since graduate work implies advanced study and some degree of specialization, a certain amount of undergraduate preparation in the subject or field of study is presupposed before you may undertake graduate study in that subject or field.

In most departments a minimum of 27 undergraduate credits is required in the major area. Refer to the requirements listed by each program. It is your responsibility to ascertain whether a period of residence on the Athens campus is required in your major and to plan a program of study accordingly by consulting with your advisor and departmental graduate committee. A comprehensive examination may be required, the nature and timing of which is determined by the department.

Thesis Requirement

If you are in a thesis program, you will prepare the thesis under the guidance of your thesis director on a subject in the field of your major work (see "Restricted Publications of Theses or Dissertations"). The thesis provides an opportunity for you to formulate and express the results of research and study. You may meet the thesis requirement by presenting the results of a creative activity in literature, music, fine arts, or industrial arts, together with a written essay indicating the purpose, procedure, problems, and bibliography involved in the work. Each department prescribes the specific style manual to be followed by its students.

You and your thesis director are responsible for maintaining accepted standards of grammar, sentence structure, punctuation, form, and scholarly style in the thesis. A pamphlet, "Format for the Presentation of Theses and Dissertations," is available in the college deans' offices. This booklet contains regulations regarding type, margins, quality of paper, and other aspects, as well as detailed directions for submitting the finished thesis. If you are writing a thesis, you must obtain from your dean's office the current "Format" and the printed list of quarterly deadlines for graduation.

After the thesis has been approved by your thesis committee, thesis director, and dean, two copies are forwarded to Alden Library. In addition, one copy is retained in your department. The copies are bound and cataloged; one copy is placed in Archives and the other in the stacks. The thesis is considered a public document and made available to the public in the same manner as any other document cataloged within the university library. If you wish, you may submit a copy of the thesis to University Microfilms International for microfilming and entry into electronic databases.

Oral Thesis Examination

An oral thesis examination is required of all students in a thesis program. The examining committee is composed of the director of the thesis (as chair) and two or more additional faculty members. You and your thesis director, in consultation with members of the examining committee, set a time and place for the examination. You must present final copies of the thesis to members of your examination committee at least two weeks before the date of your oral examination to allow adequate review of the manuscript. Results of the examination are reported to the Office of Graduate Student Services and the Office of Student Records as soon as final approval of the thesis is given.

Nonthesis Option

Several departments have master's degree programs with a nonthesis option. Consult with your advisor and carefully consider your career goals in deciding between a thesis or nonthesis option. Many academic areas regard a nonthesis master's program as a terminal degree program.

Transfer of Credit

You may transfer a maximum of 12 quarter hours of graduate credit from an accredited university to a master's degree program at Ohio University, providing the credits to be transferred must be designated graduate credit at the institution where taken, are letter graded B or better; were earned in the past five years; are applicable toward an advanced degree at the institution where taken; and were earned in courses taught by members of that institution's graduate faculty. Credit is not accepted for courses taken by correspondence. Any request for transfer of credit must be recommended by your advisor and departmental graduate committee before final review and acceptance by your dean's office. No letter grades will appear on the transcript for transferred courses, nor will they be calculated in your grade-point average.

Time Limit

The maximum time allowed between the date when you first initiate graduate study toward a master's degree and the date when you complete the requirements for the master's degree is six calendar years. Any master's degree program that requires more than 60 hours may increase the six-year time limit to seven years with the approval of the Graduate Council. Check with the Office of Graduate Student Services or your graduate department to verify the time limit for your graduate program. If you do not complete your requirements within the time limit, you may be permitted to continue graduate study only if exceptional circumstances are associated with the delay.

The dean of your college may grant a one-time one-quarter extension. If circumstances require an extension of time beyond the one-quarter dean's extension, you must apply for readmission to the program. The graduate committee of the program and the dean of the college must review the readmission application. The criteria for readmission should be the currency of your courses, project, or thesis. The program may require retaking or adding particular courses, updating the project or thesis, taking additional practicum or internship hours, or fulfilling any degree requirements that have been added since the initiation of your program. If readmission is approved, the specifications for readmission must be presented to you in writing, with a copy placed on file in the Office of Graduate Student Services.

Second Master's Degree

If you wish to earn a second master's degree at Ohio University, you must make formal application for admission to the department in which you are seeking the second master's degree and pay an application fee of \$10. In addition, you must prepare a program of study for each master's degree by listing the course number, name, and number of credits. You may use no more than 12 credits from one master's degree program to satisfy degree requirements in a second master's degree program. Each program of study must be signed by the departmental graduate committee in both departments in which master's degrees will be earned. You must then submit the programs of study to the Office of Graduate Student Services for final approval. Any admission status given in a second master's degree program must be regarded as provisional until the programs of study are approved.

Doctoral Degrees

The doctoral degree is granted on the basis of evidence that you have achieved a high level of scholarship and proficiency in research rather than solely on the basis of successful completion

of a prescribed amount of coursework. Your competence and ability to work independently and write creatively are established by qualifying and comprehensive examinations and the quality of a dissertation submitted as an account of your original research.

Program of Study and Advisory Committee

The graduate committee of your department will assign an advisor and an advisory committee who must approve the proposed program of study for the degree. Graduate work completed at another university will be considered by the departmental graduate committee and your advisory committee in the development of your program of study.

Typically, when the dissertation proposal is nearing approval, the departmental graduate committee will forward to the office of the dean of the college in which you are enrolled a recommendation for appointment of a dean's representative, together with the names of other dissertation committee members and the title of your dissertation. The committee must consist of at least three members representing the range of content in your program of study, in addition to the representative from the dean's office.

Comprehensive Examination

When coursework is virtually completed, and upon the recommendation of the advisory committee, you take a comprehensive examination to establish your mastery of the fields of specialization and readiness for advanced research. The results of the examination must be reported within one week to the office of the dean of the college in which you are enrolled on a form provided by the dean's office.

A copy of this form should be sent to the Office of Graduate Student Services to be included in your academic file.

Scholarly Discipline Requirement

The doctoral degree by definition is research oriented, and each department determines the auxiliary research competencies needed by doctoral candidates. Competence is determined by standards and methods established by the individual department. If you expect to demonstrate proficiency in one of the scholarly disciplines in which examinations are arranged by your dean's office (e.g., statistics, computer science, or foreign language), you must file an appropriate intent form. This form is available from and should be filed with the office of the dean of the college in which you are enrolled. You must be registered for a minimum of two hours in the quarter in which you take the examination.

The French, German, Russian, and Spanish proficiency examinations of the Educational Testing Service are given at Ohio University several times during the year. Information and application forms are available at the Department of Modern Languages, Gordy Hall 283.

Academic Residency Requirement

Normally, at least three academic quarters of the doctoral program are in continuous residence on the Athens campus in an institutional full-time status (registration for 15 graduate credits). If you receive Ohio University stipend support, you are considered to have instructional full-time status by registering for nine or more graduate credits. For some programs, the residency requirement can be fulfilled a third way: if you are not receiving stipend or scholarship support, you may be granted the option of completing residency requirements for the doctoral degree by enrolling in nine quarter hours of coursework per quarter for three consecutive quarters if concurrently employed in a full-time professional position, defined as one in which the experience contributes directly to your program. This option must be approved by your advisor, the department or school graduate committee, and the department chair or school director. A written justification of how the experience gained in the position is directly and educationally related to

your professional goals and the goals of the program, and why this experience (alone or combined with other planned experiences) should be used to satisfy residency, is required.

You must submit the written justification to your advisor before the request will be considered. The continuous residence requirement applies to the period of graduate study following the completion of the master's degree or the completion of at least 45 graduate credits.

Admission to Candidacy

Admission to candidacy is achieved after you have completed the following steps: (1) formation of the dissertation committee (including the dean's representative), which may be the same as your advisory committee; (2) approval of the research proposal by this committee; (3) successful completion of the comprehensive examination; and (4) satisfaction of all required scholarly disciplines.

Forms indicating completion of the above steps are available from and filed in the office of the dean of the college in which you are enrolled. You are not permitted to schedule the oral examination of the dissertation until you have met all requirements for admission to candidacy.

A copy of your admission-to-candidacy letter should be sent to the Office of Graduate Student Services for inclusion in your official file.

Dissertation

A dissertation, the scholarly account of research in the new area of knowledge, is submitted by each candidate (see "Restricted Publications of Theses or Dissertations"). Each department prescribes the specific style manual to be followed by its students. A pamphlet, "Format for the Presentation of Theses and Dissertations," is available in the deans' offices. This booklet contains regulations regarding type, margins, quality of paper, abstract, and other aspects, as well as detailed directions for submitting the finished dissertation to the office of the dean of the college

in which you are enrolled. You must obtain from your dean's office the current "Format" and the list of quarterly deadlines for graduation.

After the dissertation has been approved by your dissertation committee, dissertation director, and dean, two copies are forwarded to Alden Library. In addition, one copy is retained in your department, and another is submitted to University Microfilms International for microfilming and entry into *Dissertation Abstracts International*. Upon the return of the copy from University Microfilms International, both copies are bound and cataloged; one copy is placed in Archives and the other in the stacks. The dissertation is considered a public document and made available to the public in the same manner as any other document cataloged within the university library.

A copy of the dissertation abstract should be sent to the Office of Graduate Student Services for inclusion in your official file.

Copyright

Dissertations can be copyrighted at the time the manuscripts are sent to University Microfilms International. Arrangements can be made through the library for this service. Under current copyright procedures, microfilming by University Microfilms International constitutes publication. You may lose the ability to obtain a copyright if your dissertation is not copyrighted at the time of submission to your dean's office. For further information, contact the University Libraries administrative office in Alden Library 512.

Oral Dissertation Examination

An oral dissertation examination is required of all doctoral candidates. The examining committee is composed of your entire dissertation committee (including the representative of the dean of the college in which you are enrolled) unless otherwise specified by the associate provost for graduate and research programs. You must present final copies of the dissertation to

members of the examining committee at least two weeks before the date of your oral examination to allow adequate time for review. The final arrangements for the examination must be completed through the office of the dean of the college in which you are enrolled at least 10 days prior to the examination. Details of the examination, including time and place, are sent by the dean's office to you and the examiners.

The Office of Graduate Student Services should be notified of the date that you passed the oral examination for inclusion in your official file.

Time Limit

You must complete the doctoral program of study within seven calendar years of the date of its initiation as determined by the department and recorded in the Office of Graduate Student Services.

If you do not complete requirements for the degree within the given period, you may be permitted to continue in graduate study only if exceptional circumstances are associated with the delay in progress.

The dean of your college may grant a one-time one-quarter extension. If circumstances require an extension beyond the one-quarter dean's extension, you must apply for readmission to the program. The application for readmission must be reviewed by the graduate committee of the program and the dean of the college. Criteria for readmission should be the currency of your (1) knowledge of the required work, (2) research literature, and (3) research methods and techniques. The program may require additional coursework, retaking the oral/written comprehensive examination, changing or updating the dissertation, or fulfilling any degree requirements that have been added since the initiation of your program. If you are approved for readmission, the specifications for readmission must be presented to you in writing with a copy placed on file in the Office of Graduate Student Services.

Restricted Publication of Theses or Dissertations

The university does not accept theses or dissertations containing material developed as part of a research project if the thesis or dissertation is restricted from publication. Publication, for this purpose, includes the cataloging and placement of the approved manuscript in the Ohio University Libraries and, for dissertations, microfilming by University Microfilms International. (University Microfilms International does allow authors to restrict the distribution of dissertations and theses.)

Upon written request to your dean's office, you may delay publication up to a maximum of 12 months if, in the judgment of the office, the data upon which your thesis or dissertation is based are proprietary and not available in the public domain. You must submit the request for delay with the formal approval of your advisor at least one academic quarter before the normal date of publication of the thesis or dissertation.

A thesis or dissertation completed at Ohio University is withheld from the public only if it has been approved for delayed publication following the procedures outlined above or if a question of plagiarism, libelous or abusive statements, or falsification or misrepresentation of data is raised, in which case the manuscript is withheld until the issue has been resolved.

For further information, consult Ohio University Policy and Procedure #19.051.

Registration

Details concerning the registration procedure are given in each quarter's *Schedule of Classes*, which is available from the Registrar's Office before the registration period.

If you are a graduate student with admission status who has not registered for a quarter or more (except summer), you must request a re-enrollment form one month in advance of the quarter in which you intend to register. Former students whose admission status has

expired through time limits or graduation must apply for a time extension or reapply for admission and re-enroll.

You must be registered at the graduate level in any quarter in which you receive any service from the university or use its facilities. Master's students must be registered for at least one graduate credit hour, and doctoral students for at least two. Any exceptions must be approved by the office of the dean of the college in which you are enrolled.

If you are currently attending the university, you may preregister for a subsequent quarter.

Identification Card

When you register, you will be given information about obtaining an identification card, issued by Communication Network Services (CNS). This card, which is automatically validated when you register, gives you access to campus services including the meal plan, library privileges, and the Student Health Service.

The card is issued free of charge according to these guidelines:

- 1** If you are a new student, you are issued a card free of charge.
- 2** If you are a re-enrolling student returning after one year or more, your old card will be valid upon registration. If you no longer have your old card, you will be issued a new card free of charge.
- 3** If your name or Social Security number has changed, you will be issued a new card free of charge provided you return your old card when the new one is issued.

CNS charges a card replacement fee under these circumstances:

- 1** You will be charged \$10 to replace a card that is lost, stolen, or damaged within one year of your last quarter of enrollment. (A \$5 refund will be issued if you find your old card and return it to CNS during the same quarter in which it was replaced.)

2 If your name or Social Security number has changed, you will be charged \$10 for a new card *only* if you do not return the old card. If you return the old card when the new one is issued, you will not be charged.

Full-Time Status

By state standards, which are also used by Ohio University, a full-time equivalent student is one carrying 15 hours of graduate credit per quarter. At the graduate level, however, the university uses different credit loads to define a full-time student for certain purposes. Examples are apparent as you read through this catalog.

Veterans Benefits

To receive full veterans benefits, you must register for at least nine quarter hours of graduate work. For more information about veterans benefits, contact the Veterans Coordinator, Chubb Hall 110.

Auditing

To audit a course, follow the registration procedures outlined in the quarterly *Schedule of Classes*. The academic fees for auditing a course are the same as the fees for taking a course for credit. Since auditing is a grading option, you can change from audit to credit or credit to audit only by dropping the course and re-adding it with the correct grading option. You can make this change only during the first 15 calendar days of the quarter.

Your instructor may set up specific requirements for auditing a course, and if you do not meet the requirements, you may be removed from the class, at the instructor's discretion, with a grade of WP or WF. Be sure to discuss your auditing status with the instructor at the first class meeting.

Courses taken for audit cannot fulfill registration requirements for graduate appointments.

Cancellation of Registration

Your advisor or graduate chair, with the approval of the dean, may request that Graduate Student Services cancel your registration because of poor academic performance, failure to meet course prerequisites, falsified signatures, failure to provide final transcripts, or other violations of university policy.

Change Procedures

Change of Class Schedule

To add a course, withdraw from a course, or correct your registration, follow the procedures outlined in the quarterly *Schedule of Classes*. Changes that deal with programmatic content must be approved by your faculty advisor and the course instructor.

Adds. A course may be added only during the first 15 calendar days of the quarter. Follow the procedures outlined in the quarterly *Schedule of Classes*.

Drops. You may drop any course through the fifth week (defined for the purpose of this policy as the 35th calendar day) of a term. After the end of the fifth week and before the last class day of the quarter, you may petition your dean in writing, requesting to drop under special circumstances. (Earning a low grade in the course is not considered such a circumstance.) If you drop a course during the first two weeks (15 calendar days), you will have no record of the course on your transcript.

If you drop a course after the 15th day of the quarter, the instructor assigns a grade of WP or WF, indicating that you were performing work considered passing (WP) or failing (WF) at the time you dropped the course. This grade is awarded at the end of the quarter, at which time the name of each student who has dropped a course appears on the grade sheet.

If you drop hours before or during the first 15 days of the quarter, when such changes result in reduction of fees, you are entitled to receive a 100 percent refund of the reduction. Changes made after the 15th day of the quarter result in no refund.

This policy is to be implemented for degree-seeking graduate students in the following way: during the time between registration and the end of the fifth week, you must inform your instructor and department graduate committee chair of your intent to drop a course. After the fifth week of the quarter and before the last class day of the quarter, you may petition your department graduate committee chair in writing to request a drop under special circumstances. If the department graduate committee chair approves the request, a copy of the special petition will go to the dean of your college for approval. Poor academic performance is not sufficient grounds for dropping a course. Graduate students who are not formally part of a graduate program are covered by the drop policy as it applies to undergraduates.

Change in Program Requirements

As a degree candidate, you must either (a) meet the requirements set forth in the *Graduate Catalog* at the time of your initial registration in a graduate degree program, or (b) should you choose to follow the requirements of a later catalog, meet those requirements in their entirety. In the event of program changes, departments are expected to make appropriate adjustments to allow you to fulfill the requirements of the initial program of study. If an extension of time beyond one quarter is granted, you are generally expected to meet all requirements of the program at the time of the extension request to the Graduate Council. Requests for such extensions must incorporate a detailed explanation of the means employed to meet modifications in requirements enacted since your entry. This information is considered by the Graduate Council as part of the approval process. (This paragraph does not apply to students in the College of Osteopathic Medicine.)

Change of Personal Information

All changes to your personal data must be reported to the Registrar's Office, Chubb Hall. Forms are available in the Office of Graduate Student Services or the Registrar's Office. Changes of name, social security number, and birth date must have a document verifying the correct information at the time the request is made.

Forms for reporting a change of home or Athens address are available in the Office of Graduate Student Services. You are responsible for any university office communication sent to you at the last address reported to the Registrar's Office.

Graduate Student Responsibility

You must assume responsibility for knowing university, college, and departmental regulations and for complying with all applicable procedures. In no case will a requirement be waived or an exception granted because you plead ignorance of the requirement or assert that your advisor or another authority did not inform you of the requirement. While the personnel of the Office of Graduate Student Services and your advisor will endeavor to aid in every way possible, the responsibility for meeting requirements stated in this catalog rests with you.

Late Registration

Unless in the judgment of the registrar your registration has been delayed due to the convenience of the university, a late registration fee will be assessed beginning with the third week of each quarter.

The late fee is \$40 the third week, \$60 the fourth week, \$80 the fifth week, and \$100 the sixth week.

The last day to register with a late fee is the Friday of the sixth calendar week of the quarter.

All fees, including the late registration fee, must be paid before the late registration form will be accepted and processed.

In addition to all other service charges, a \$10 returned check charge will be assessed by the Bursar's Office on all checks returned by a bank for insufficient funds.

Withdrawal from the University

Apply for withdrawal on a withdrawal form obtained from the Office of Graduate Student Services. When the request for withdrawal has been approved by the associate provost for graduate studies, the order is referred to the Office of Student Records, which grants an official withdrawal after it has been determined that all obligations to the university have been met. A refund of registration fees is made according to regulations.

If you withdraw after the 15th day of any quarter, you will receive a WP/WF grade in each course. If you fail to complete the work of a course and do not complete an authorized withdrawal, you will have an F reported for the course.

If you have withdrawn from the university for medical reasons, you may not be reinstated until the Office of Graduate Student Services has received a written clearance from the Student Health Service.

Transcripts

A copy of your records is issued by the Registrar's Office as an official transcript. Transcripts are made only upon written request, with a \$5 charge for each copy.

Unmet university financial obligations or pending disciplinary cases may result in a hold being placed on your academic record. A transcript will not be sent until the hold is cleared by the initiating office.

Replacement Diploma

To receive a replacement diploma, you must file with the Registrar's Office a notarized affidavit attesting that your original diploma has been lost or destroyed, a copy of a court order verifying a legal name change, or a copy of your official marriage certificate. In the case of a legal name change, the original diploma must be returned.

Each affidavit requesting a replacement diploma must be accompanied by a \$15 fee.

The replacement diploma will carry current titles and signatures of university officers and the notation "official replacement." Allow 6 weeks for delivery.

Academic Misconduct

All forms of academic misconduct are prohibited by the Student Code of Conduct. Academic misconduct refers to dishonesty in assignments or examinations (cheating); presenting the ideas or the writing of someone else as your own (plagiarism); or knowingly furnishing false information to the university by forgery, alteration, or misuse of university documents, records, or identification. Academic misconduct includes, but is not limited to, permitting another student to plagiarize or cheat from your work; submitting an academic exercise (written work, printing, sculpture, computer program) that has been prepared totally or in part by another; acquiring improper knowledge of the contents of an exam; using unauthorized material during an exam; submitting the same paper in two different courses without the knowledge and consent of your professors; or submitting a forged grade change slip.

If you have committed any act of academic misconduct as determined by the judgment of a faculty member or by the procedures of the Office of University Judiciaries, serious action—which may include failure of work undertaken, failure in the course, and formal disciplinary action, including suspension or expulsion by the Office of University Judiciaries—will be taken against you.

In cases of academic misconduct, a faculty member has the authority to grant a failing grade. If your course grade is lowered by an instructor who has accused you of plagiarism, you may appeal this grade first through the instructor, then the department chair or school director, and then the dean of your college. If satisfaction is not achieved through this process, the dean will appoint a faculty committee of five members, including the chair or director of the department or school, to consider your case and render a decision. The decision of this committee is not subject to further appeal.

The faculty member also has the discretion to refer your case to the director of judiciaries. The director of judiciaries, the University Hearing Board, and the University Appeal Board have the authority to take formal action that includes, but is not limited to, suspension or expulsion from the university. However, the director of judiciaries, the University Hearing Board, and the University Appeal Board have no authority to modify a grade given by a faculty member.

If you wish to appeal an action of University Judiciaries or the University Hearing Board, such as suspension or expulsion, you can take the matter to the University Appeal Board. Details of appeal procedures are included in the *Student Handbook*.

Further information on academic misconduct is available from the Office of University Judiciaries, Pilcher House, telephone 740-593-2626.

Intellectual Property Policy

The university intellectual property policy is defined by Ohio University Policy and Procedure 17.001. In accordance with state law (Section 3345.44, Ohio Revised Code), patentable inventions created by Ohio University

faculty, staff, and students are the property of the university if the work was supported by university funds or performed in university-controlled facilities. Computer software and databases are the property of the university if created as part of university-assigned duties. The policy provides for a generous sharing of any royalties among the inventors and the relevant university units, departments, and colleges. Students are encouraged to read the complete policy and procedures on the Web—at www.cns.ohiou.edu/ictto/tto/ouippol.html—or contact the Technology Transfer Office.

Research Using Human Subjects

The investigator in any research involving human subjects at Ohio University is expected to conduct any and all such experiments in compliance with Ohio University Policy and Procedure 19.052.

In summary, this policy applies to research investigations involving human subjects conducted by faculty, staff, or students at or under the auspices of Ohio University.

The purpose of the policy is to protect the rights and personal privacy of individuals, to assure a favorable climate for the conduct of scientific inquiry, and to protect the interests of Ohio University. Ohio University's policy on research involving human subjects is in compliance with the requirements set forth in the National Research Act (P.L. 93-348) and the regulations on public welfare set forth in Part 46 of Title 45 of the Code of Federal Regulations (45 CFR 46).

For details concerning the scope and purpose of this policy and for information concerning procedures, see the *Ohio University Policy and Procedures Manual* or contact the Office of Research and Sponsored Programs.

Graduation and Annual Commencement Exercise

You must apply for graduation through the Office of Student Records and pay the graduation fee by the date indicated in the university calendar. If you fail to meet graduation requirements in that quarter, you must reapply for graduation and pay the graduation reapplication fee by the date indicated in the university calendar for the quarter in which you will meet graduation requirements. You must submit all work to be applied toward meeting degree requirements no later than the last day of classes of the quarter in which you expect to graduate. Additional deadlines to be met by students writing theses or dissertations are available in the office of the dean of the college in which you are enrolled.

The annual commencement is held at the close of spring quarter in June. Master's and doctoral degree recipients from the preceding winter, fall, and summer quarters are invited to attend, along with spring-quarter candidates. Doctoral candidates must be approved for graduation by their college dean before they can participate.

Academic attire with appropriate hoods is worn by candidates at the commencement exercises. Make arrangements for purchasing academic attire through the Office of Public Occasions.

Services for Students

Office of Graduate Student Services

The Office of Graduate Student Services assists students with the university processes of admission and registration and is a source of information on matters affecting graduate students. Personnel in this office are available for consultation and assistance on matters of interest to graduate students. All official graduate files are kept in this office.

Career Services

The Office of Career Services offers assistance in making career decisions, exploring career options, and conducting effective job searches. Services include:

Individual advising on career decision-making and job search strategies;

Seminars on career decision making, resume preparation, interview techniques, and other career-related topics;

A Mock Interview Program that allows you to practice and improve your interview performance;

Career fairs that bring a wide variety of employers to campus to discuss career and job opportunities;

A Career Resource Library containing a wealth of career information: career guides, employer directories, graduate school guides, admissions test bulletins, summer job and internship listings, employer literature, and professional job vacancies.

In addition to the above services, which are free to all students, the office also offers the Computerized Job Search Assistance Program for students who will graduate in the current academic year. This program consists of three special services: computerized resume referrals, Bobcat Jobs Online, and on-campus interviewing. To be eligible for

this program, you must register with the office by attending a registration seminar that explains services and procedures; paying a nominal fee; and submitting required materials.

The Career Services Web site—<http://www.ohiou.edu/careers/index.htm>—can provide general career information and connect you with a range of other job-hunting resources on the Internet.

You are encouraged to contact Career Services, Lindley Hall 185, telephone 740-593-2909, for assistance in all career-related matters.

Computer Services

Computer Services provides state-of-the-art computing resources and facilities to all Ohio University students at no charge. Professors or instructors arrange for your access to course-specific computer resources.

Computer Services operates a number of satellite labs where you may use computer terminals or microcomputers for your academic work. Most of the microcomputers can be used to access the Internet and Ohio University's network of computers.

Lab locations include Alden Library, Computer Services Center, Copeland Hall, Grover Center, and the Music Building. Many departments also

operate computing labs for their own students. Both departmental and Computer Services-managed locations have a wide variety of microcomputer software available, including Microsoft Word, Excel, and Works; and WordPerfect for Macintosh. A total of 50 labs are available—some to all students, some with restrictions.

Five residence halls have labs. Both Jefferson Hall and Brough House have a lab with Macintosh and PC systems; Boyd Hall contains e-mail and PC systems; Brown Hall Lab has PC systems; and Hoover House contains microcomputers that can also be used to access mainframe computers.

The main offices for Computer Services are in the Computer Services Center. The Alden Instructional Support Lab is located on the second floor of Alden Library. Hours for the computer labs are posted in the labs on a quarterly basis.

Computer Services operates the OAK student e-mail system, which provides e-mail and Internet access to all university students. It can be used from any network-connected PC or Macintosh or by modem.

Most of the labs contain laser printers for printing high-quality output.

Communication Network Services (CNS) provides voice and data communications, along with TCP/IP-based networking support, to the campus community.

The campus telephone network, owned and maintained by Ohio University, furnishes approximately 9,000 voice lines and connects more than 110 buildings on campus through a fiber-optic network. Supporting more than 7,000 students and 3,500 faculty and staff on campus, CNS provides on-campus calling, local calling, and long distance service to the campus, as well as maintenance, installation, and technical support for microcomputer and audiovisual equipment.

CNS also supports the university Wide Area Network, reaching all university departments and connecting thousands of computers to campus computing resources. Links to other networks, including the Ohio Academic Resource Network (OARnet), the Internet, and the five Ohio University regional campuses, give students and faculty the ability to access information from networks around the world.

Counseling and Psychological Services

Counseling and psychological services are available to graduate and undergraduate students on an individual and group basis for educational, career, and personal adjustment concerns. Confidential consultations are provided by a staff of counselors, psychologists, and trainees.

If you are facing personal problems of any kind (emotional, social, marital, substance abuse, stress, etc.), you can receive help in understanding and resolving those difficulties. Workshops on a variety of topics, designed to support the educational, social, and personal growth of students, are frequently offered.

If you are having academic difficulties, you can receive help in understanding and resolving your concerns so that you can improve your performance.

If you are uncertain about your educational or career objectives, you can obtain assistance in appraising your abilities, interests, performance, etc., so you can identify more appropriate and satisfying directions.

The Miller Analogies Test (MAT) is administered biweekly.

To make an appointment, contact the receptionist on the third floor of Hudson Health Center or call 740-593-1616 between 8 a.m. and noon or 1 p.m. and 5 p.m. Monday through Friday.

Cultural Events and Entertainment

University students have the opportunity to see theatrical productions produced by the Ohio University School of Theater during the academic year. In addition, the Ohio Valley Summer Theater stages two productions during the summer.

The School of Music offers recitals and concerts by students, faculty, and visiting artists, and the School of Music Opera Workshop produces an annual opera.

The Performing Arts Series comprises 10 to 14 national and international programs that include symphony orchestras, Broadway theater, dance, recitalists, choral, and ethnic programs.

A variety of art exhibitions are available in the university's Kennedy Museum of American Art. Additional exhibitions, including work by the School of Art faculty and students, are displayed in the Seigfried Hall and Trisolini Galleries.

Pop concerts by contemporary entertainers are sponsored by student organizations on campus. First-run movies, foreign films, experimental movies, and classic films are shown throughout the year.

The university invites distinguished speakers and artists to appear in recital or to lecture informally on campus through the Schools of Theater, Music, and Dance; the Kennedy Lecture Series, Frontiers in Science Lecture Series, and Student Lectures.

The university's public radio stations, WOUB-AM and -FM, and public television station, WOUB-TV, provide entertaining and educational programming for the university and community.

Graduate Council

The Graduate Council reviews, coordinates, and serves as an advocate for graduate education at Ohio University. The council has both advisory and policy-recommending responsibilities for graduate education. The council initiates, reviews, and recommends university-wide policy and new directions for graduate education.

The Graduate Council recommends to the University Curriculum Council the initiation, implementation, and elimination of graduate programs and degrees at Ohio University. Other recommendations by the council go through the provost to the president for final approval.

The composition of the Graduate Council represents both departments that grant doctoral degrees and those offering only master's degrees.

Graduate Student Senate

The Graduate Student Senate is composed of student representatives from each graduate academic department. It represents the graduate student body in the university community and provides a forum in which graduate students can discuss issues related to their concerns about both academic and nonacademic aspects of the community.

The Graduate Student Senate is recognized by the university as the representative graduate student organization, and is therefore responsible for recommending graduate students for positions on university standing committees. The senate also awards the Outstanding Graduate Faculty Award, the Outstanding Graduate Student Award, and the Graduate Student Senate John Houk Memorial Research Grants for graduate student research. Other Graduate Student Senate activities include

workshops on such topics as grant writing and library resource system identification and use, and yearly research activities on the quality of graduate life and education.

The Graduate Student Senate meets on a regular basis year round. All meetings are announced and open to the public.

For more information or a copy of the Graduate Student Senate constitution, contact the president of Graduate Student Senate, Ohio University, Athens OH 45701-2979, telephone 740-593-1899.

Health Service

The Student Health Service is located in Hudson Health Center on the North Green. As an enrolled student, you have access to medical care in the ambulatory care clinic on a walk-in basis Monday through Friday. Your eligibility for services does not depend on purchasing student health insurance.

Serving you in the outpatient clinic are a pharmacy, a medical laboratory, x-ray facilities, and a physical therapy department. The staff includes physicians, registered nurses, physical therapists, pharmacists, and registered laboratory and x-ray technicians. A medical record is maintained.

If you are an international student, you must have a tuberculosis skin test upon first arriving in Athens or returning to the campus after an absence of two or more years. This test is given free of charge. Check the current *Schedule of Classes* for time and place.

Health Insurance

Ohio University requires students to maintain a health insurance plan. Domestic students taking seven or more hours and international students taking one or more hours will automatically be billed for insurance. The major medical plan offered by the university is designed to supplement the care provided by the Student Health Service. Graduate students participating in an internship or co-op program, or completing a master's thesis or doctoral dissertation, may also be eligible.

The plan, subject to the benefits and exclusions of the policy, provides protection against major medical and surgical expenses for the insured student at home, at school, or while traveling anywhere in the world. In addition to accident and sickness benefits, the policy includes repatriation, medical evacuation, and accidental death benefits.

If you are married or a single parent, you may purchase the university accident and sickness plan for your spouse and dependent children. For more information regarding student insurance, you can call the Student Health Service at 740-593-1660.

Housing

Residence Hall Housing

Many graduate students find on-campus living to be a convenient and comfortable option. Residence hall options for graduate students include buildings designated for graduate students and students over 21 years of age; for juniors, seniors, and graduate students; air conditioned facilities (available at an extra charge); and facilities with in-room computer connectivity. Predominant room styles include doubles and singles, and there are a few triples and quads. Most residence hall space designated for graduate students is on South Green.

Residence hall housing is secured by returning the housing acceptance agreement to Ohio University Housing. Priority for residence hall assignments is established by the date the agreement is returned. Assignments are made in the order the agreements are received; those received earlier are assigned first.

The housing agreement is binding for the entire academic year (fall, winter, and spring quarters), unless you graduate or otherwise leave the university. Once the academic year begins, it is highly unlikely that a continuing student will be released from the contractual obligation that is assumed when the agreement is returned.

Food Service

Four basic meal plans are offered to help meet a variety of needs. You do not have to live on campus to participate in one of the meal plans, but may purchase any of the plans as an off-campus student. The 7-meal plan is the least expensive and is for light eaters or those who anticipate eating most of their meals off campus. The 14-meal plan allows you to select any 14 meals during a seven-day period and is a good choice if you tend to spend your weekends away from campus or prefer two meals a day. The 20-meal plan allows you to eat all meals served during a seven-day period. The most economical of the meal plans, it is preferred by those who eat almost exclusively on campus, athletes, and hearty eaters. The Green Card is for those who want 20 meals a week and don't want to forfeit the value of a meal that they may miss or skip. Unlike the 20-meal plan, the Green Card allows you to use missed meal credits, either by taking a friend to the dining hall or by getting items from one of the snack bars or convenience stores. This plan may be shared with another student. For the 7-, 14- and 20-meal

plans, weekly missed meals are forfeited; the plans are not transferable. All university food service contracts are binding for the entire academic year for on-campus students. Off-campus students may purchase a quarterly meal plan contract.

University Apartments

Ohio University has two apartment complexes rented primarily to married students, students with children, and single graduate students. The Wolfe Street Apartments are located on the southeast corner of the main campus, near Clippinger Laboratories. Fifty-two units are available in a two-story brick building: 38 one-bedroom units, 8 bedroom/nurseries, 4 efficiencies, and 2 two-bedroom units. The Mill Street Apartments are six blocks northeast of the main campus, adjacent to the intramural fields. Sixty-six one-bedroom apartments are housed in a six-story building with elevator service. Each of the 127 two-bedroom apartments is housed in one of 12 smaller buildings with direct access to the outdoors. Outdoor parking facilities, coin-operated laundries, and a fenced playground are located in both complexes.

All Wolfe Street apartments are furnished; Mill Street apartments may be rented either furnished or unfurnished. Furnished apartments are extremely limited. Furnishings in the apartments do not include linens, bedding, dishes, lamps, or rugs. Both furnished and unfurnished apartments are equipped with an electric range, refrigerator, and miniblinds. All utilities are included in the monthly rent, including monthly television cable service. A telephone outlet is provided in each unit with local service provided by General Telephone Company of Ohio, but the cost of phone service is not included in the rent. Air conditioners are permitted with an additional installation and electricity surcharge fee. All guidelines established by the university regarding air conditioner usage must be followed.

Interim Housing

The university tries to provide graduate students with housing at a nominal cost during the breaks between the fall and winter quarters and the winter and spring quarters, when residence halls are closed. Interim housing will likely involve a temporary change of residence.

For a period of about 40 days—from Thanksgiving through New Year's Day—Ohio University is not in session. You should plan to have sufficient funds to cover living expenses for this period. Food service is not available on campus, and meal costs in local restaurants are considerably more than the per-day cost of a regular board plan.

If you have questions about the residence halls or want information concerning university apartments, contact Housing, Chubb Hall 60, Athens OH 45701, telephone 740-593-4090, e-mail housing@ohio.edu.

Information Center

A complete information service in the lobby of Baker Center answers questions regarding university services, programs, campus events, and facilities. For information, call 740-593-4000.

The Information Center has Ohio University brochures, the *Campus Directory*, academic and social calendars, and researches questions when information is not immediately available. In addition, it provides check cashing services and typewriters.

For university personnel and student telephone numbers during the day, call the switchboard 740-593-1000; evenings, call the Student Directory at 740-593-2700.

Institutional Equity

It is the policy of Ohio University that there shall be no discrimination against any individual in educational or employment opportunities because of race, color, religion, national origin, sex, status as a disabled veteran or veteran of the Vietnam era, or disability. Also, there shall be no discrimination because of age except in compliance with age requirements of retirement plans or state and federal laws and guidelines.

Furthermore, the university conducts a vigorous affirmative action program in order to promote equal employment opportunities and to ensure nondiscrimination in all educational programs and activities.

It is a goal of Ohio University to increase the representation of underrepresented students in all of its graduate programs, and to that end, specific efforts are being made by individual academic departments to recruit minority graduate students. Special opportunities for minority and female students have been created through grant funds in several areas, including telecommunications, osteopathic medicine, electrical engineering, psychology, education, and health careers.

For more information about special opportunities, contact the graduate chair in the specific department or the dean's office in the appropriate college.

Sexual Harassment

Sexual harassment of students, staff, or faculty is prohibited at Ohio University. No male or female member of the Ohio University community, including faculty, contract staff, classified staff, and students, may sexually harass any other member of the community. Sexual harassment is a form of sex discrimination under Title VII of the Civil Rights Act of 1964 and thereby is illegal under law as well as a violation of Ohio University Policy.

This policy defines sexual harassment as unwanted advances, requests for sexual favors, or other verbal or physical conduct of a sexual nature when:

- 1 submission to such conduct is made either explicitly or implicitly a term or condition of employment or of a student's status in a course, program, or activity;
- 2 submission to or rejection of such conduct is used as the basis for decisions affecting the individual; or
- 3 such conduct has the purpose or effect of unreasonably interfering with the individual's work, performance, or educational experience; or creating an intimidating, hostile, or offensive environment for work or learning.

Examples of sexual harassment (not to be construed as exhaustive) include:

- 1 physical assault;
- 2 pressure, subtle or overt, for sexual favors accompanied by implied or overt threats concerning one's job, grades, or letters of recommendation;
- 3 inappropriate display of sexually suggestive objects or pictures;
- 4 direct propositions of a sexual nature;
- 5 a pattern of conduct that would discomfort or humiliate, or both, a reasonable person at whom the conduct was directed, such as unnecessary touching, pinching, patting, or the constant brushing against another's body; use of sexually abusive language, including remarks about a person's clothing, body, bodily movement, or sexual activities; and unwanted and unwelcome teasing and joking of a sexual nature.

All Ohio University employees and students are responsible for compliance with this policy. All university supervisory personnel have an affirmative responsibility to discourage and

eliminate conduct inconsistent with this policy. Complaints may be received and investigated only by employees who have been authorized by the institution. Authorization will be given only to those individuals who have completed training provided by staff of the Office for Institutional Equity. Any individual who is not authorized but is approached about concerns or complaints regarding harassment **must** direct the complaint to an authorized employee.

Because of their positions or the nature of their work, the following individuals, or their designees, shall have completed training and thereby be authorized to receive and investigate inquiries and complaints: representatives of each major planning unit other than the unit head (a list will be available at the Office for Institutional Equity and Office of Legal Affairs); representatives from the Office for Institutional Equity and the Offices of Health Education and Wellness, Judiciaries, Legal Affairs, the Ombudsman, and Human Resources. When authorized employees are contacted to receive a complaint, they must consult the staff of the Office for Institutional Equity.

Libraries

The University Libraries collection comprises 2 million bound volumes, 14,036 periodical subscriptions, and more than 2.8 million research materials including microform units, maps, photographs, cassettes, videotapes, and disks. The main library on the Athens campus is the Vernon Roger Alden Library. The seven-story building has seating accommodations for 2,800 people and is open seven days a week for a total of 102 hours.

Collections. Besides the main collection, which is arranged by the Library of Congress Classification System, the library houses separate subject and special collections: the Archives and Special Collections, Children's Collection, Government Documents, the

Health Sciences Library, Instructional Media and Technology Services, Map Collection, Microforms and Nonprint Collection, and Southeast Asia Collection. In separate buildings are the Music/Dance Library and a number of departmental collections in several scientific disciplines. Each of the regional campuses also has a well established library.

Collections on the main and regional campuses are accessible through ALICE, the Ohio University Libraries online catalog. ALICE can also be used outside the library via a modem or network connection. Tours and instructional presentations are offered to classes and groups upon request. Subject bibliographer services are available to assist with information and research needs in specific academic disciplines.

Electronic Resources. Electronic information services can assist you in identifying and obtaining resources. The library offers more than 200 electronic databases and more than 2,000 electronic journals. Most of these are available on the Internet, and others are networked on campus or within Alden Library. The Libraries' Web pages link to these and also provide access to statewide resources in academic libraries through OhioLINK, to national and international resources on the Internet, and to the vast OCLC Worldcat database. Librarians can assist with online retrieval of information using commercial database services.

Access to Research Collections. Materials in distant collections are easily accessible through OCLC and other library networks. The Libraries' Interlibrary Loan service taps into such networks, as well as resources at the Center for Research Libraries, to assist in obtaining research materials not available locally. Graduate students may also use document delivery and current awareness services to enhance the research process.

Instructional Media and Technology Services (IMTS). IMTS, located on the second floor of the library, provides audiovisual equipment and services to the entire university community. IMTS has more than 9,000 video cassettes and other media available. Instructional design and graphic and photographic production services, which generate a variety of instructional materials including CD-ROM and Web materials, are available for academic courses upon faculty request. Audiovisual equipment such as projectors and recorders can be rented by registered campus student organizations. See the IMTS Web site for further information at <http://www.ohiou.edu/imts>.

For more information about the Ohio University libraries, visit our World Wide Web site: <http://www.library.ohiou.edu/>

Motor Vehicles/Registration

Before driving and/or parking on Ohio University property, students must register their vehicles at the Department of Campus Safety, 135 Scott Quad. Failing to register a motor vehicle or parking illegally makes the violator subject to penalties as printed on the violation/citation. There is no charge to register vehicles.

Motorcycles are exempt from the registration requirement, although they are restricted to specific parking areas.

Parking maps are available at no charge from the Department of Campus Safety. For parking information, you can call 740-593-1917.

Ombudsman

The Ombudsman serves as an advocate for fairness while assisting students and other members of the university community in resolving problems. The Ombudsman works as a change agent when issues or concerns repeatedly emerge, and serves as a resource on university policies and procedures.

Further duties include assisting individuals in accomplishing the expeditious settlement of their problems: intervening in the bureaucratic process on behalf of individuals when that process unnecessarily or unfairly impinges upon them, and using broad investigatory powers through direct and ready access to all university officials of instruction and administration. Complaints and grievances brought to the office are handled with confidentiality. Finally, the Ombudsman reports valid complaints directly to the president when no remedy has been found elsewhere in the University.

The Office of the Ombudsman is located at Crewson House 200, telephone 740-593-2627.

Research and Sponsored Programs

The Office of Research and Sponsored Programs assists faculty and graduate students in obtaining grants for external support of research, doctoral dissertations, fellowships, and other university-based projects. The office maintains a library of information sources on grant opportunities, which is open to all members of the university community. Graduate students are often appointed to externally supported faculty-directed research projects as graduate research associates and receive a stipend and tuition scholarships.

Recreation

The Ohio University Division of Campus Recreation, under the administration of the College of Health and Human Services, is committed to the health and wellness of the Ohio University community. A commitment is made to improve the quality of life by providing quality facilities and programs and ensuring customer satisfaction.

The division is composed of the Aquatic Center, Bird Ice Arena, Charles J. Ping Student Recreation Center, driving range, fields, golf course, and tennis complex; and there are programs in club sports, fitness, intramural sports, and outdoor pursuits. These areas complement one another in providing students with facilities and programs to meet their recreational interests and needs. They also fulfill university goals by encouraging physical, emotional, and social growth.

The Aquatic Center features an Olympic-sized pool that has two three-meter and two one-meter diving boards, an underwater observation area for viewing swimming and diving techniques, and a sun deck.

Bird Ice Arena is an indoor arena that features an illuminated 190-by-85-foot ice surface with fiberglass dasher boards. It provides skate rentals, a lounge area, and a concession stand.

The Ping Center is one of the largest campus recreational facilities in the country. It covers more than 168,000 square feet on three floors housing five basketball courts, two multipurpose courts, eight racquetball courts (two of which can be converted for squash and wallyball), weight, aerobic, fitness, and combative rooms, an indoor track, climbing wall, game room, meeting rooms, and a lounge.

The university golf course has nine holes and a putting green. Rentals can be made for golf equipment and carts, and a pro shop provides for the purchase of supplies. The illuminated 300-yard driving range is located on West State Street and can accommodate approximately 30 drivers.

The tennis complex, located immediately next to the Ping Center, consists of four indoor and six outdoor courts. The indoor courts are covered by a 40-foot tent structure, allowing players to compete in state-of-the-art playing conditions. A newly developed clubhouse, built between the two tennis courts, will serve as an entrance to both the tennis complex and the Ohio University golf course.

The Ping Center and the Aquatic Center, open year round, are available to students, faculty, and staff. The Aquatic Center is open to the community and alumni during lap and recreational swim times; the Ping Center is available to community and alumni on special weekend events and as guests of students, faculty, and staff. Bird Arena, golf course, and driving range operations are seasonal.

The division administers recognized club sports on campus—currently more than 30 clubs. Each club is run by students and establishes an organizational framework, leadership, and a schedule to meet the needs of its members. New clubs can be organized if they meet the needs of the university community. Many of the outdoor club sport activities take place on the south green club sports fields, the Stimson Avenue club sports fields, and the West State Street club sports fields. Use of these fields is by reservation only.

The Fitness Program offers diverse program opportunities, including an aerobics schedule ranging from traditional Step and Hi/Lo to Aerobics and Sport Conditioning classes. Instructional programs offer exciting activities such as Yoga and Pilates®. Personal fitness training and fitness assessments also are available.

The Intramural Sports Program offers activities for men and women that involve individual, dual, and team competition. Activities include football, basketball, baseball, broomball, volleyball, innertube water polo, wall climbing, softball, tennis, racquetball, bowling, golf, squash, billiards, table tennis, swimming, floor hockey, soccer, indoor soccer, and wallyball. A coed program for dual and team competition is offered for most activities. All outdoor intramural sports are played on the Mill Street intramural sports field complex (four flag football fields, two soccer fields, five softball fields), the Ohio University tennis court complex, and the Athens West State Street baseball field. Use of all intramural sports fields is by reservation only.

The Outdoor Pursuits Program provides opportunities for outdoor adventure sports and activities. It offers various outdoor trips, a gear-rental program, outdoor clinics, a library of outdoor subjects, and a climbing wall. The Outdoor Pursuits Program is housed in the Ping Center.

The division also offers recreational special events throughout the year. For more information on facilities and programs, call 740-597-2732 (CREC).

Colleges and Curricula

Academic Organization

Ohio University offers graduate degree programs through the Colleges of Arts and Sciences, Business, Communication, Education, Engineering and Technology, Fine Arts, and Health and Human Services. Graduate programs are also offered through the Center for International Studies and the College of Osteopathic Medicine. The Office of Graduate Student Services coordinates graduate study at Ohio University and administers the Individual Interdisciplinary Studies Program.

Ohio University is fully accredited by the North Central Association of Colleges and Schools at the bachelor's, master's, and doctoral levels. In addition, numerous departments, schools, and colleges within the university hold individual accreditation. Additional information is available from the office of each college's dean.

College of Arts and Sciences

African American Studies*

Anthropology*

Biological Sciences (M.S., Ph.D.)

Ecology and evolutionary biology, endocrinology and metabolic physiology, exercise physiology and muscle biology, medical microbiology, neurobiology

Chemistry (M.S., Ph.D.)

Analytical, biological, inorganic, organic, and physical chemistry

Conservation Biology (certificate)

Economics (M.A.)

English (M.A., Ph.D.)

Environmental and Plant Biology (M.S.; Ph.D. through Department of Biological Sciences)

Biochemistry, cell biology, ecology, ethnobotany, evolution, molecular biology, plant morphology, mycology, paleobotany, plant physiology, plant systematics

Environmental Studies (M.S.)

Foreign Languages and Literatures

French, Spanish (M.A.)
Courses in Arabic, Chinese, French, German, Greek, Indonesian/Malaysian, Latin, Italian, Japanese, Russian, Spanish, Swahili, Southeast Asian Literature in translation

Geography (M.S.)

Geological Sciences (M.S.)

Geology, hydrogeology, environmental geography, environmental geochemistry, geophysics

History (M.A., Ph.D.)

Linguistics (M.A.)

General linguistics, teaching English as a second or foreign language

Mathematics (M.S., Ph.D.)

Applied mathematics, computer science, mathematics for secondary school teachers, pure mathematics (M.S.); algebra, analysis, topology, applied mathematics (Ph.D.)

Molecular and Cellular Biology (Ph.D.)

Ohio Program of Intensive English*

Philosophy (M.A.)

Physics (M.A., M.S., Ph.D.)

Political Science (M.A., M.P.A.)

Political science, public administration

Psychology (M.S., Ph.D.)

Clinical, experimental, and industrial/organizational psychology

Social Work (M.S.W.)

Social Sciences (M.S.S.)

Sociology (M.A.)

Women's Studies (certificate)

College of Business

Accounting (M.S.A.)

Business (M.B.A.)

Executive M.B.A. Program, M.B.A. Without Boundaries

College of Communication

- Interpersonal Communication (M.A., Ph.D.)**
Interpersonal communication, organizational communication, rhetorical and communication theory
- Journalism (M.S.)**
- Mass Communication (Ph.D.)**
- Telecommunications (M.A.)**
International communication, management, screenwriting
- Visual Communication (M.A.)**
Photography

College of Education

- Adolescent to Young Adult Education (M.Ed.)**
- College Student Personnel (M.Ed.)**
- Computer Education and Technology (M.Ed.)**
- Counselor Education (M.Ed., Ph.D.)**
- Cultural Studies in Education (M.Ed.)**
- Curriculum and Instruction (Ph.D.)**
(Emphases: curriculum and instruction, instructional technology, math education, middle level education, reading and language arts, social studies education, special education, supervision)
- Educational Administration (M.Ed., Ed.D.)**
- Educational Research and Evaluation (M.Ed., Ph.D.)**
- Elementary Education (M.Ed.)**
- Higher Education (M.Ed., Ph.D.)**
- Mathematics Teaching at the Adolescent to Young Adult Level (M.Ed.)**
- Middle School Education (M.Ed.)**
- Reading Education (M.Ed., Ph.D.)**
- Special Education (M.Ed., Ph.D.)**
- Talented and Gifted (M.Ed.)**

Russ College of Engineering and Technology

- Chemical Engineering (M.S., Ph.D.)**
Coal conversion and utilization, polymerization reaction engineering, process control and dynamics, biochemical engineering, atmospheric chemistry, corrosion and multiphase flow, semiconductor materials, and separation processes.
- Civil Engineering (M.S.)**
Geotechnical, environmental, geoenvironmental, structures, solid mechanics, water resources, transportation
- Electrical Engineering and Computer Science (M.S., Ph.D.)**
Avionics, computers, applied and theoretical computer science, communications, controls, information theory, solid-state electronics, energy conversion, power electronics, power systems, electromagnetics, signal processing, manufacturing, VLSI design, computer vision, electronic circuits, and optoelectronics
- Industrial and Manufacturing Systems Engineering (M.S.)**
Manufacturing systems, manufacturing information systems, quality systems
- Integrated Engineering (Ph.D.)**
Materials processing, geotechnical and environmental, intelligent systems
- Mechanical Engineering (M.S.)**
Mechanical systems, CAD/CAM, manufacturing, thermofluid sciences

College of Fine Arts

- Art (M.A., M.F.A.)**
Ceramics, painting, photography, printmaking, sculpture, art history, and art history/studio (M.F.A.); art education, photography (M.A.)
- Comparative Arts (Ph.D.)**
- Dance***
- Film (M.A., M.F.A.)**
- Music (M.M.)**
Composition, history and literature, music education, music therapy, performance, theory
- Theater**
Theater history and criticism (M.A.);

acting, directing, playwriting, production design and technology (M.F.A.); theater (M.A.)

*Offers graduate-level coursework but no degree or certificate.

College of Health and Human Services

- Health Sciences (M.H.A.)**
Acute care administration, long-term care administration
- Hearing and Speech Sciences (M.A.H.S.S., Ph.D.)**
Speech-language pathology, audiology
- Human and Consumer Sciences (M.S.H.C.S.)**
Early childhood education, family studies, international and community nutrition, nutrition science
- Physical Therapy (M.P.T.)**
- Recreation and Sport Sciences (M.S.P.E., M.S.P.Ex., M.S.A.)**
Athletic administration, athletic training, physical education pedagogy, recreation studies, sport physiology and adult fitness (M.S.P.E.); exercise physiology (M.S.P.Ex.); sports administration/facility management (M.S.A.).

Center for International Studies

International affairs (M.A.)
African Studies, Communication and Development Studies, International Development Studies, Latin American Studies, Southeast Asia Studies.

Individual Interdisciplinary Program

Individual master's and doctoral programs

College of Osteopathic Medicine

Four-year professional program leading to the Doctor of Osteopathic Medicine degree (see separate catalog).

Certificate Programs

Most of the certificate programs listed on this page are open to all students pursuing a graduate program at the university, regardless of college or field, and the health policy certificate is open to nondegree students as well. These interdisciplinary programs can complement your primary area of interest, broaden your career possibilities, or allow you to study an area of interest from a variety of perspectives. You will be awarded the certificate and receive official recognition on your transcript when you graduate.

Conservation Biology

The Program in Conservation Biology offers an interdisciplinary graduate certificate in conservation biology. The program applies a multifaceted understanding of the factors affecting the conservation of biological diversity. It is centered in the Department of Biological Sciences but includes faculty members from the Departments of Environmental and Plant Biology, Economics, Geography, and Political Science.

Students enrolled in any master's or doctoral program at Ohio University are eligible to apply for the certificate. For additional information on admission and requirements, see the program description in the College of Arts and Sciences section.

Contemporary History

The Contemporary History Institute offers a certificate in contemporary history that serves as an adjunct to M.A. and Ph.D. degrees in history, M.A. degrees in economics and political science, the M.S. in journalism, and the Ph.D. in mass communication (journalism sequence). The institute is centered in the Department of History, but it also draws faculty and students from the Departments of Economics and Political Science, the E. W. Scripps School of Journalism, and the undergraduate Honors Tutorial College.

Students receive the certificate after satisfactorily completing a sequence of interdisciplinary seminars and tutorials focusing on the methodology, themes, and issues in contemporary history and writing a thesis or dissertation on some aspect of that subject.

For additional information on admission and requirements, see the program description in the College of Arts and Sciences section.

Gerontology

Through its Institute for the College of Health and Human Services, the College of Health and Human Services and the College of Arts and Sciences jointly sponsor the graduate gerontology certificate program. The program is designed for students who want to gain knowledge and skills for a career that involves working with the elderly.

Students enrolled in any master's or doctoral program, as well as nondegree students, at Ohio University are eligible to apply for the certificate. For additional information on admission and requirements, see the program description in the College of Health and Human Services section.

Health Policy

The multidisciplinary graduate certificate in health policy addresses the educational needs of graduate students

and professionals in health care and related industries who have already earned a bachelor's or graduate degree. It is designed particularly for those who work or plan to work in business, government, health sciences, hearing and speech sciences, medicine, nursing, nutrition, political science, physical therapy, psychology, or social work.

Students enrolled in any master's or doctoral program at Ohio University, as well as nondegree students, are eligible to apply for the certificate. For additional information on admission and requirements, see the program description in the College of Health and Human Services section.

Women's Studies

The interdisciplinary graduate certificate in women's studies can enrich any degree program; it may be particularly helpful to those who plan to work in such areas as journalism, counseling, education, health, management, labor relations, social work, law, personnel, and wherever analysis of cultural definitions of sex roles and knowledge of the changing social, legal, and political status of women is useful.

Students enrolled in any master's or doctoral program at Ohio University are eligible to apply for the certificate. For additional information on admission and requirements, see the program description in the College of Arts and Sciences section.

Areas of Instruction

The following sections, arranged by college, describe areas of graduate instruction at Ohio University and the requirements for admission to and completion of graduate degree and certificate programs. All programs and requirements are subject to change without notice at the discretion of Ohio University.

Guide to Course Listings

Course listings for each area follow the program requirements.

Course Number

The course number indicates the student classification for which the course is intended. Courses numbered 500–699 are for master’s-level students; courses numbered 700–899 are for post-master’s or doctoral-level students. No graduate credit is awarded for any work taken below the 500 level.

The italicized information following some course descriptions gives the following information: faculty name; quarter offered (*F* for fall, *W* for winter, *Sp* for spring, *Su* for summer); frequency with which the course is offered (*A* for alternate years, *Y* for yearly, *D* for on demand); and the last year in which the course was offered.

Credit Hours

Credit for a course is indicated by the number or numbers in parentheses following the course title.

For a course carrying variable credit, the credit may be expressed as a range and a maximum—for example,

(1–4, max 8)—indicating that one credit is the minimum and four credits the maximum allowed for the course in one quarter. You may enroll for a course with variable credit any number of times and for any number of credits within the quarter limit, provided the total registration for the course does not exceed the maximum. Departments may limit the number of hours counted in satisfying degree requirements.

Prerequisites

Course prerequisites are indicated at the beginning of course descriptions following the abbreviation “Prereq.” Even if you have not met the prerequisites, you may add a course by obtaining the instructor’s permission. Once you have completed an advanced course, you may not subsequently enroll in a prerequisite course for credit.

Courses described in this catalog are for graduate credit only; graduate standing is a prerequisite for enrollment. For more information, see “Undergraduates Taking Graduate Courses” in the Application for Admission section.

Class Schedule

Each quarter’s *Schedule of Classes* is available from the Registrar’s Office and other locations around campus.

College of Arts and Sciences

Wilson Hall, College Green

Leslie Flemming
Dean

Roger Rollins
Associate Dean

Maureen Weissenrieder
Associate Dean

The College of Arts and Sciences offers the Master of Arts or Master of Science degree through 16 departments. Multidepartmental and special discipline master's degrees are offered in social work, social sciences, environmental studies, and public administration. Doctor of Philosophy degrees are offered in biological sciences, chemistry and biochemistry, English, environmental and plant biology, history, mathematics, physics and astronomy, and psychology. More than one area of emphasis is available at both degree levels in several of these departments.

Each department will provide upon request a brochure describing specific degree requirements, specialized graduate facilities, and any other information that prospective students might need.

Facilities

Among the college's graduate facilities and equipment are a Tandem van de Graaff nuclear accelerator, several modern nuclear magnetic resonance spectrometers, a nitride MOCVD facility, the Keck Thin-film Analysis Facility, a scanning tunneling microscope with molecular beam epitaxy growth chamber, several chemical spectrometers, several electron microscopes, a scanning confocal microscopy facility, a photomicroscopy laboratory, and a mammalian recombinant genetics laboratory. Specialized laboratory facilities include a morphometrics laboratory, an exercise physiology laboratory, and a hybridoma laboratory. A large preserve of remnant primary forest, Wayne National Forest, Ohio Department of Wildlife areas, and a 180-acre land laboratory adjacent to the campus are all available as resources for teaching and research. Ohio University is a member of the Association of Systematic Collections; collections include an herbarium with more than 5,000 plant species, an entomological collection with more than 100,000 insect specimens, a vertebrate collection with more than 10,000 species, a paleobotanical collection with more than 100,000 specimens, and a paleoinvertebrate collection with at least 350,000 specimens. Departments in the social sciences maintain up-to-date computer

laboratories, and the Experimental Psychology Research Laboratory and a modern clinical facility serve as resources for training in psychology.

Graduate Degree Programs

Biological Sciences (M.S., Ph.D.)
Chemistry and Biochemistry (M.S., Ph.D.)
Economics (M.A.)
English (M.A., Ph.D.)
Environmental and Plant Biology (M.S., Ph.D.)
Environmental Studies (M.S.)
Geography (M.A.)
Geological Sciences (M.S.)
History (M.A., Ph.D.)
Linguistics (M.A.)
Mathematics (M.S., Ph.D.)
Modern Languages: French, Spanish (M.A.)
Molecular and Cellular Biology (Ph.D.)
Philosophy (M.A.)
Physics and Astronomy (M.A., M.S., Ph.D.)
Political Science (M.A.)
Public Administration (M.P.A.)
Psychology (M.S., Ph.D.)
Social Sciences (M.S.S.)
Social Work (M.S.W.)
Sociology (M.A.)

Graduate Certificate Programs

Conservation Biology
Contemporary History
Women's Studies

Curricula and Courses

African American Studies

The Department of African American studies does not offer an academic program leading to a graduate degree. It does, however, offer several graduate courses that enable students to earn a minor concentration in African World Studies. The courses provide a broad interdisciplinary approach to the black experience and include the social sciences, communication, education, psychology, and the arts and humanities. Several courses contribute to degree programs in African and Latin American studies. Graduate students pursuing a degree in communication, education, international studies, health sciences, sociology, history, political science, or philosophy will find a minor emphasis in the African world experience to be useful.

African American Studies Courses (AAS)

501A Images of Blacks (4)

Examines the sources and the effects of the dominant negative images of blacks that have pervaded American culture—bucks, coons, buffoons, improvident, children, devoted Christians, etc.—with a view to showing how they relate to slavery and the subsequent exclusion of blacks from the mainstream of American life. Also examines alternative images. Materials are drawn from a variety of areas—literature, sciences, pseudosciences, media, and visual arts. *Rose*.

530 Social Theories of Underdevelopment (5)
Systematic review of problems of social change in developing areas from multidisciplinary point of view. Attention to problems of agrarian reforms, urbanization as social process, and regional disparities within framework of single nation state, among others. Comparative analysis of problems of social development undertaken typologically. *Rhodes*.

531 Third World Ethnic Politics (5)
Review of various theories of race. Critique of diverse definitions of ethnic groups. Attention to problem of ethnicity in international arena. Cross-national comparisons made of ethnic processes in developing countries vis-à-vis ethnic processes in the U.S. and Western and Eastern Europe. *Rhodes*.

532 Third World National Movements (5)
Comparative study of varieties of national oppression. Questions of ethno-nationalism, clerical nationalism, and other forms of response to oppression reviewed. Due attention to various notions of Pan Africanism and Black Nationalism in the U.S., Africa, and Latin America. *Rhodes*.

540 The Black Child (5)

In-depth study of black child—impact and effects of growing up in America. Specifically, deals with effects and role of school and family in creative adjustment of black child in predominantly white society. *Childs*.

582 The Black Family (5)

Black family in America and its important role in development of ethnic differences, strengths, and strategies. *Childs*.

691 Professional Seminar (1-15)

Class involving contact hours, discussion, and required assignments. If you enroll in an upper-division undergraduate course under this course number, you are required to complete assignments beyond those required of undergraduates and to write papers to present to class for discussion.

697 Independent Research (1-15)

For students desiring to pursue independent research projects under supervision of a faculty member and resulting in term paper or equivalent. Usually a sequel to previous subject-matter course.

Anthropology

No graduate degree in anthropology is offered, but some graduate courses are offered each quarter. These contribute particularly to degree programs in Asian studies, African studies, Latin American studies, and sociology, as well as other programs such as communication, comparative arts, creative writing, dance, ecology, economics, education, film, food and nutrition, geography, linguistics, philosophy, and political science.

Anthropology Courses (ANTH)

501 Anthropology and Film (5)

Prereq: 101. The use of film as a medium for recording cultural information; as a technique for observation, analysis, and interpretation of cultural information; and as a means for presenting information about cultures, human adaptation, human evolution, and anthropological research itself.

545 Gender in Cross-Cultural Perspective (5)

A cross-cultural comparative inquiry into the way different non-Western cultures define femininity and masculinity. Taking the view that gender is a cultural construction, the course examines the relationships between gender ideas and such features of social systems as kinship and political hierarchy. Ethnographic fieldwork materials are explored in light of current gender theories.

550 Economic Anthropology (5)

Survey of economic arrangements found in various types of cultural systems with emphasis on application of anthropological theory and method for understanding particular systems.

551 Political Anthropology (5)

Cross-cultural survey of political arrangements with emphasis on application of anthropological method and theory to political problems.

552 Archaeological Anthropology (5)

Introduction to contemporary archaeology in which goals, theory, and method are directed toward reconstruction of extinct sociocultural systems rather than toward time-space distribution of archaeological materials.

555 Medical Anthropology (5)

Non-western medical systems and theories of health and disease causation; social basis for diagnosis and cure; curing rituals; symbolism of health and illness. Ecological factors in health and nonhealth; systematic connections between health or illness and both way of life and environmental situation.

556 Seminar in Methodology and Field Research (5)

A graduate seminar in anthropological field methods, designed to present the basic methodology literature and prepare students to conduct anthropological field research. Since anthropology has subfields (cultural anthropology, archaeology, physical anthropology), the methodological literature and techniques presented vary by instructor's specialty. When taught by a cultural anthropologist, the focus will often be on ethnographic methods.

557 Anthropology of Religion (5)

Survey of various aspects of religion in their cultural setting with emphasis on the use of anthropological theories for an objective understanding of religion.

560 Kinship (5)

Theoretical framework and ethnographic work on kinship systems of various world cultures; non-western family systems; kinship terminology; social change in kinship systems.

561 North American Prehistory (5)

Analysis and interpretation of the cultural evolution of indigenous North American Indian cultures. Emphasis on cultures from Ohio and the Midwest.

563 Gender in Prehistory (5)

Examines the application of gender studies as an analytic tool for archaeological reconstructions. Considers evolving gender roles within a wide range of past cultural settings.

564 Near East Prehistory (5)

Scrutiny of the archaeological data and consequent reconstruction of the evolutionary process affecting cultures in the Near East. Analysis begins with the earliest occupation of the region and ends with the establishment of various state systems.

565 Field School in Ohio Archaeology (5-10)

Prereq: perm. Actual archaeological investigation of prehistoric Indian sites in Ohio. Involves survey, excavation, and laboratory analysis of materials, as well as lectures on anthropological archaeology as it pertains to Ohio.

566 Cultures of the Americas (5)

Survey of cultural diversity present in South, North, or Mesoamerica with emphasis on application of anthropological method and theory to understanding of particular socio-cultural systems.

567 South American Prehistory (5)

Reconstruction, analysis, and interpretation of the process of cultural evolution as expressed by the ancient societies of South America.

570 Mexican/Central American Prehistory (5)

Reconstruction, analysis, and interpretation of the process of cultural evolution as expressed by the ancient societies of Mexico and Central America (Mesoamerica).

571 Ethnology (5)

Cross-cultural analysis of structure, process, and adaptation in various cultural systems; includes kinship, ideology, economics, politics, and environmental relationships.

572 History of Anthropological Thought (5)

In-depth examination of schools of anthropology as they have developed within various subfields at different times and places.

575 Culture and Personality (5)

Interrelations between personality systems and cultural systems.

576 Culture Contact and Change (5)

Impacts of cultures upon one another: immediate and subsequent cultural adaptations. Emphasis on southeast Asia, Latin America, Africa.

577 Peasant Communities (5)

Focuses upon folk component of state societies.

578 Human Ecology (5)

Analysis of mutual and reciprocal relations between sociocultural systems and other systems in their environment; ecosystems and biotic communities in which human populations are included.

581 Cultures of Sub-Saharan Africa (5)

Survey of cultural diversity in sub-Saharan Africa with emphasis on application of anthropological theory and method to understanding of particular sociocultural systems.

585 Cultures of Southeast Asia (5)

Survey of cultural systems of island and mainland Southeast Asia.

586 Problems in Southeast Asia Anthropology (5)

Selected topics of current theoretical concern relating to southeast Asia.

587 Pacific Island Cultures (5)

Anthropological survey of Melanesia, Polynesia, and Micronesia.

591 Primate Social Organization (5)

Introduction to primate ethnology, with reference to development of human cultural behavior.

592 Human Evolution (5)

In-depth examination of evidence for biological macroevolution of humans. Topics include fossil record for hominoid and hominid forms, speciation, interpretation of fossil record, evolution of crucial anatomical areas, and fit between paleontological and immunological approaches to evolution.

594 Seminar in Anthropology (4-6)

Selected topics.

599 Readings in Anthropology (1-3, max 8)

Supervised readings in all areas of anthropology. Make individual arrangements with particular faculty member in advance.

Bacteriology

See Biological Sciences.

Black Studies

See African American Studies.

Biological Sciences

Admission to graduate study in biological sciences requires a bachelor's degree with a strong background in the biological and physical sciences, including calculus, organic chemistry, and physics. Results of verbal, analytical, and quantitative tests of the Graduate Record Examination (GRE) are required of all applicants; you must score in at least the 50th percentile to apply. The GRE advanced subject test in biology or a physical science is recommended but not required. GRE scores; the application; transcripts; a short essay concerning prior training, research interest, and career goals; a list of faculty members with whom you are interested in working; and three letters of recommendation should be received by January 15 for you to be considered for financial support during the following academic year. Applicants whose native language is not English also must submit the results of the Test of English as a Foreign Language (TOEFL) or its equivalent; a score of at least 620 is required for admission.

Master's students must complete 45 quarter hours, with at least 30 hours in formal courses and seminars. A nonthesis master's program is available for secondary school and junior college teachers. Doctoral students must complete 135 quarter hours beyond the bachelor's degree, with at least 45 quarter hours in formal courses and seminars. At least one quarter of supervised teaching within the department is required of all master's students, and two quarters are required of doctoral students.

Areas of Emphasis

Graduate education in the Department of Biological Sciences is conducted in five research focus groups:

The **ecology and evolutionary biology** group integrates research on the ecology, functional morphology, phylogeny, genetics, and life history of natural populations and model

organisms to study evolutionary patterns, processes, and mechanisms.

The **endocrinology and metabolic physiology** group investigates the roles of endocrine, genetic, and environmental factors on the regulation of anatomical, physiological, and metabolic systems.

The **exercise physiology and muscle biology** group focuses on the effects of exercise, nutrition, gender, and aging on human performance, skeletal muscle histology, physiology, skeletal muscle injury and healing, and metabolic and reproductive endocrinology.

The **medical microbiology** group addresses questions concerning the role of microorganisms in environmental and disease processes and the role of the immune system in containing infection. Molecular, cellular, and immunological techniques are used to investigate specific areas of research that include parasites, viruses, bacteria, and the immune system.

The **neurobiology** group addresses areas of research including computational neurobiology; developmental neurobiology, emphasizing trophic interactions in the development of sensory systems; control of movement; central pattern generation; muscle biology; musculoskeletal mechanics; visual, auditory, and vestibular neurobiology; cardiovascular regulation; neuronal cytoskeleton and axonal transport; neurobiology of aging; neuroendocrine control of development; and neural and neuroendocrine control of the autonomic nervous system.

The department also offers interdisciplinary studies in two areas:

Conservation biology—a plan of study leading to a graduate certificate in conservation biology, offered in conjunction with the Departments of Economics, Environmental and Plant Biology, Geography, Geological Sciences, and Political Science. (See "Conservation Biology.")

Molecular and cellular biology—

M.S. and Ph.D. programs offered in conjunction with the Departments of Chemistry and Environmental and Plant Biology. (See "Molecular and Cellular Biology.")

Biological Sciences Courses (BIOS)

502 Human Neuroscience (4)

Study of human brain anatomy with functional and clinical considerations. Students will do a complete brain dissection. Students will be assessed by means of a lab practical and two written exams. 3 lec, 2 lab. *DiCaprio, Peterson, Rowe; F; Y.*

503 Comparative Vertebrate Anatomy (6)

Comparative study of the anatomy of vertebrates. Structure, function, and evolution of the vertebrate body forms and organ systems are compared. Extensive lab work covers each of the major classes of vertebrates. 3 lec, 6 lab. *Carr, Reilly; W, Sp; Y.*

505 Quantitative Approaches in Comparative Biology (6)

Quantitative methodologies and analytical techniques used in modern comparative biology are explored through lectures, technical demonstrations, and by using the techniques to collect, analyze, and present data. 3 lec, 6 lab. *Reilly; W; Y.*

506 Vertebrate Embryology (6)

Prereq: 300 or 303. Development from gametogenesis to organogenesis in representative vertebrate types with lab emphasis given to chick and pig. 4 lec, 4 lab. *Ross; W, Sp; Y.*

507 Developmental Biology (4)

Mechanisms of animal development at tissue, cellular, and molecular levels of organization, with emphasis on experimental approaches. 4 lec. *Sp; D.*

508 Histology (6)

Prereq: 303. Cells, tissues, and organ systems with regard to their morphological and physiological properties. 4 lec, 4 lab. *W; Y.*

509 Neural Basis of Sensation and Movement (4)

Prereq: 512 or perm. Sensory system function and the neural control of movement in vertebrates: how molecules, cells and circuits of nervous systems give rise to sensation (vision, hearing, touch, smell, etc.) and to basic behaviors (locomotion, posture, orientation of head and eyes toward sensory stimuli, etc.). In each class, students hear a lecture and discuss assigned articles from the research literature. A major goal of the course is to train students in critical analysis of primary journal articles. Assessment is based on two essay exams. *Peterson, Rowe; W; A.*

510 Cognitive Neuroscience (4)

Prereq: 509. Neural basis of higher-order processes in vertebrates: learning and memory, perception, attention, emotion, consciousness. Topics are considered at behavioral, cellular, and molecular levels. Students are encouraged to understand cognitive processes by integrating research results from multiple levels. In each class, students discuss original journal articles and recent scholarly reviews of topics in cognitive neuroscience. A major goal of the course is to train students in effective presentation of research literature and leadership of group discussions. Assessment is based on two essay exams. *Peterson, Rowe; Sp; A.*

511 Methods in Computational Neuroscience (4)

Prereq: 512 recommended. Lecture, discussion, and computer lab. Introduction to mathematical and computational techniques for modeling single neurons and networks of neurons. Cable theory; Rall's model; compartmental models; introduction to available software for simulating neurons and networks of neurons; modeling of action potentials, Hodgkin-Huxley equations, synaptic conductances, and voltage-dependent conductances; Hebbian synapses; synaptic modification rules; quantal analysis; neural networks. Students are expected to complete simulation project using one of the available software packages. 4 lec, lab arr. *Holmes; W; Y.*

512 Molecular and Cellular Neuroscience (4)

Intended for students interested in neuroscience. Introduction to the molecular and cellular basis of the functioning of the nervous system. Topics to be covered include morphology, excitable properties of neurons, mathematical modeling, synaptic function, cell biology, and neuronal development. 4 lec. *Colvin; F; Y.*

514 Virology (5)

Introduces graduate students to virology through lecture and laboratory exercises. *Biegelke; Sp; Y.*

516 Biogeography (4)

Examination of historical, environmental, and biotic influences that shape spatial patterns of plant and animal distributions and community structure in the contemporary landscape. Dual listed with GEOG 516. *Dyer; F; Y.*

520 Comparative Vertebrate Biomechanics (4)

Prereq: 303. Describes basic mechanical, behavioral, and ecological aspects of animal locomotion. Some background in anatomy and basic physics (vectors, levers) is recommended. *Biknevicius; Sp; A.*

525 Evolutionary Genetics (4)

Basic concepts of population genetics (mutation, gene flow, natural selection, genetic drift). Rates, patterns, and processes of molecular evolution at the population and species level. 4 lec. *White; F; A.*

527 Mechanisms of Gene Regulation (3)

Discussion of the molecular events that regulate gene expression to result in appropriate development and differentiation. *Biegelke; W; Y.*

529 Marine Biology (5)

Biological processes in marine and estuarine habitats, and adaptations for life at sea; emphasis on environmental variables affecting distribution, abundance, and dynamics of marine plants and animals. Includes five-day field trip (estimated cost \$100 per student) to temperate marine environment late in quarter; limited to 20 students. 5 lec, field trip. *Sp; Y.*

530 Invertebrate Biology (6)

Structure, function, and systematic and ecological relationships among full range of phyla. Project or paper required. 4 lec, 4 lab. *W; Y.*

531 Limnology (5)

Physical, chemical, and biological processes in lakes (analogous to those of oceanography), with emphasis on the analysis of data; distribution, abundance, and dynamics of plant and animal populations; structure, organization, and productivity of communities. Lab covers both standing and running freshwater habitats, with emphasis on acid mine pollution. 4 lec, 3 lab. *Sp; A.*

534 Biology of Spiders (5)

Morphology, physiology, behavior, ecology, and classification of spiders. Lab emphasizes taxonomic studies. 3 lec, 4 lab. *Rovner; W; Y.*

535 Entomology (6)

Overview of insect biology. Lecture: insect morphology, physiology, behavior, systematics, evolution, and ecology. Lab: emphasis on insect collection and identification. 4 lec, 4 lab. *Johnson, Romero; Sp; Y.*

541A Parasitology (3)

Etiology of human parasites, their transmission, diagnosis, and prevention. 3 lec. *Rowland; W; Y.*

541B Parasitology Laboratory (2)

Laboratory survey of protozoan and helminth parasites with emphasis on life cycles and identification. 4 lab. *Rowland; W; Y.*

542 Principles of Physiology I (3)

Function of animal cells and organs emphasizing the physical and chemical principles underlying physiological processes. Focus on membrane properties of excitable and nonexcitable cells, chemical messengers and regulators, fluid balance, and nutrient balance. 3 lec. *F; W; Y.*

543 Principles of Physiology II (3)

Physiological processes underlying locomotion, sensation, behavior, circulation, gas exchange, and temperature relations. 3 lec. *W; Sp; Y.*

544 Tropical Disease Biology (4)

This team-taught lecture/seminar course is designed to provide an overview of the nature, impact, and management of tropical diseases on our planet and take a holistic approach in the examination of tropical diseases as systems. 4 lec. *W; Y.*

545 Physiology of Exercise (4)

Fundamental concepts and application of organ systems' responses to exercise: special reference to skeletal muscle metabolism, energy expenditure, cardiorespiratory regulation, and training and environmental adaptations. 4 lec. (Same as PES5 514). *Gilders, Hagerman; F; Sp; Y.*

546 Physiology of Exercise Laboratory (3)

Prereq: required for those enrolled in 545. Lab experiences designed to complement 545. 6 lab. *F; Sp; Y.*

550 Principles of Endocrinology (4)

Prereq: 542 and 543 or 560 or 548 recommended. Endocrine control of mammalian homeostasis and metabolism. 4 lec. *Loucks; W; Y.*

552 Reproductive Physiology (3)

Prereq: 550 recommended. Reproductive physiology, development, maturation, reproductive cycles, gametogenesis, fertilization, implantation, pregnancy, lactation, and environment and behavior. Emphasis on mammals. *Sp; Y.*

554 Principles of Physiology I Laboratory (2)

Prereq: 542 or concurrent. Laboratory exercises designed to illustrate the experimental basis of principles covered in 542. 4 lab. *Chamberlin; F; Y.*

555 Principles of Physiology II Laboratory (2)

Prereq: 543 or concurrent. Laboratory exercises designed to illustrate the experimental basis of principles covered in 543. 4 lab. *Chamberlin; W; Y.*

557 Animal Systematics (4)

Principles and methods of systematic zoology. Numerical methods and hypothetico-deductive reasoning applied to study of organismic diversity (taxonomy) and geographic distribution (biogeography). Use of computer stressed. 3 lec, 2 hr disc., and computer work. *Moody; F; A.*

562 Animal Physiological Ecology (4)

Examines how organismal physiology is affected by the physical environment. Comparative approaches explore the behavioral, physiological, and biochemical responses to environmental factors. Current topics and methods addressed in selected readings and discussion. *Roosenburg, Johnson, Crockett; F; Y.*

563 Cell Chemistry (4)

Chemistry of carbohydrates, lipids, proteins, and nucleic acids. Principles of enzyme activity and kinetics; metabolic pathways and regulations. 4 lec. *F, Sp; Y.*

568 Ichthyology (4)

Lecture course emphasizing aspects of biology of major families of freshwater and marine fishes. Topics include morphology, physiology, taxonomy, evolution, ecology, behavior, and zoogeography. *Eastman; Sp; A.*

571 Ornithology (6)

Bird biology, including discussions on anatomy, physiology, conservation biology, life histories, and role of ornithology in current ecological and evolutionary theory. Research paper required. 4 lec, 3 lab, field. *Miles; F; Y.*

572 Herpetology (5)

Biology of amphibians and reptiles. Lectures emphasize anatomy, physiology, ecology, behavior, taxonomy, and geography. Labs and field trips emphasize species of Ohio and families of the U.S. 3 lec, 4 lab, field. *Moody; Sp; Y.*

573 Animal Behavior (5)

Ecological, physiological, and developmental aspects of animal behavior, interpreted from the perspective of evolutionary biology. 5 lec. *Morris; W; Y.*

574 Mammalogy (6)

Mammals; their origin, evolution and adaptations, geographical distribution, ecology and systematics. Emphasis on local fauna. Field project required. 4 lec, 4 lab, field. *Svendsen; F; Y.*

575 Sociobiology (3)

Current understanding of how and why animal social behavior evolved, including spacing, mating, and parental behavior of solitary as well as social animals. Research paper required. Lectures, reading, and reports. 3 lec. *Svendsen; Sp; A.*

576 Evolution and the Challenge of Creationism (4)

Examination of two ways of knowing—science and religion—as exemplified in controversy on evolution and creationism. Claims and evidence for evolution and special creation, issues and strategies of conflict, arenas of confrontation, and implications of outcomes for both science and religion discussed. 4 lec/disc. *Hummon; W; Y.*

577 Population Ecology (4)

Major theories and concepts in population and evolutionary ecology. Emphasis on theoretical, field, and experimental studies pertaining to growth and regulation of populations; population interactions, including predation and competition, distribution and abundance, and life history theories. 4 lec. *Miles; W; A.*

578 Community Ecology (4)

Prereq: 577 or equiv. Provides a theoretical and empirical examination of the description, structure, and organization of communities. Emphasis on mathematical models that describe the biotic processes that mold community structure. Further consideration of null models in ecology and historical effects. 4 lec. *Miles; W; A.*

579 Evolution (4)

Prereq: 325. Current concepts of evolutionary processes; sources of variation, agents of change, natural selection and adaptation, speciation, and macroevolution. 4 lec. *Svendsen; W; Y.*

580 Biological Research Methods (2–4)

F, W, Sp; Y.

581 Animal Conservation Biology (4)

The roles of population genetics, population and community ecology, biogeography, systematics,

and paleobiology in the study of diversity, design of nature reserves, and the recovery of endangered species. Discussion of extinction as a process, the effects of human-induced habitat degradation on loss of species diversity, and the role of reserves in protection of animal species. *White; Sp; Y.*

587 Physiological Laboratory Apprenticeship (6, max 12)

In-depth introduction to contemporary lab techniques, lab operation, and research methodology in selected areas of physiology and pharmacology. Lab apprenticeships form two-quarter sequence which requires enrollment for six credits each quarter. *W, Sp; Y.*

609 Biological Instrumentation (5)

Introduction to biological instrumentation including basic digital and analog electronic circuits, sensors, and data acquisition techniques. Appropriate for students in neuroscience, physiology, functional morphology, and others who rely on electronic transduction, signal processing, and computer-based data acquisition and control of biological experiments. 2 lec; 6 lab. *Dicaprio; F; Y.*

610 Neuroscience Methods (4)

Prereq: 512 or perm. Training in electrophysiology including extracellular and intracellular recording and stimulation, sensory mapping, motion transduction, neuromodulation, voltage clamp, computerized data acquisition and analysis, using the “classic” invertebrate preparations (crab leg, leech, crustacean, stomatogastric system, *Aplysia* feeding system). 6 lab, 1 lec. *Hooper, Dicaprio; W; Y.*

612 Seminar in Neuroscience (1)

Forum for presentation of original research, literature reviews, and discussions of contemporary issues in neuroscience. Annual participation is required of all graduate students enrolled in the Neuroscience section. Presentation and discussion. *Staff; F, W, Sp; Y.*

613 Topics in Neuroscience (1–3)

Specialized topics in Neuroscience not otherwise available to advanced students. *Staff; F, W, Sp; D.*

653 Current Topics in Biological Transport (3)

Advanced lecture-seminar. Critical study of literature and research methods pertaining to physiology of biological transport. *F; A.*

654 Physiology of Work and Fatigue (3)

Seminar using current literature as basis for detailed discussion of contemporary facts and theories concerning influence of acute and chronic exercise upon physiological processes in mammals. Major areas include skeletal muscle, cardiovascular, endocrine, neuromuscular, and respiratory physiology. *Loucks; S; Y.*

655 Cardiovascular Physiology (3)

Advanced lecture-seminar course. Hemodynamics, normal physiology of heart and vascular system, and control of cardiovascular function. 3 lec. *W; A.*

656 Advanced Physiology of Exercise (4)

Prereq: 545 or PES5 514. Advanced concepts and methodologies for research in the endocrinology of exercise, cardiovascular and muscle physiology, and human performance assessment and training. *S; Y.*

666 Adaptational Biochemistry (3)

Prereq: CHEM 591 or perm. The function and design of enzymes, membranes, and metabolic pathways in animals adapted to live in different and often extreme environments. Biochemical strategies employed to maintain an organism's

structure and function during environmental changes in oxygen, water, salinity, temperature and other conditions will be covered. *Chamberlin, Crockett, Johnson; Sp; Y.*

670 Biostatistics I (5)

Application of univariate statistics to biology. Descriptive statistics, distributions, hypothesis testing, analysis of variance, linear regression, correlation, and analysis of frequencies. 4 lec and arr. *Svendsen; W; Y.*

680B Techniques in Electron Microscopy (6)

Principles and methods for preparation of biological specimens for ultrastructural analysis and research, and some associated techniques. Instruction in microscope operation and maintenance and darkroom techniques. Lab project and paper required. *Arr. Hikida; W; Y.*

682 Advanced Topics (1–3)

Specialized topics not otherwise available to advanced students. *F, W, Sp; Y.*

683 Colloquium in Ecology, Behavior, and Evolution (1)

Forum for presentation of original research, literature reviews, and discussions of contemporary issues in ecology, behavior, and evolution. Annual participation is required of all graduate students enrolled in the section of Ecology, Behavior, and Evolution. Presentation and discussion. *Staff; W, Sp; Y.*

685 Research in Zoology (1–15)

Unspecified research, not directly applicable to thesis. *F, W, Sp, Su; Y.*

695 Master's Thesis (1–15)

Research directly applicable to thesis. *F, W, Sp, Su; Y.*

700 Seminar in Conservation Biology (2)

Current research topics in conservation biology. Different aspects of conservation biology are covered each term with the topics chosen based on current issues related to the threats to biological diversity. Faculty and student discussion. 2 lec. *W; Y.*

710 Advances in Signal Transduction (5)

Prereq: CHEM 592. Covers the concepts of and recent advances in biochemistry and molecular biology of inter- and intracellular signal transduction. 4 lec. *Akbar; F; Y.*

730A Insect Biology (1–2, max 6)

Advanced topics in entomology. *Romoser; D.*

750A Muscle Biology (1–5)

Topics in muscle structure, function, development, disease, and relationship with nervous system. Different aspects of muscle biology covered each term, and topics chosen on basis of need or requests of interested students. *Hikida; D.*

770B Theoretical Ecology (1–4)

Examination of ecological problems from theoretical and mathematical standpoint. *Svendsen; W; D.*

794 Ecology Colloquium (2)

Student and faculty presentations of ecologically and evolutionarily focused research. *F, W, Sp; Y.*

870 Biostatistics II (5)

Application of multivariate statistics to biology; multiple regression and correlation, principal components, canonical correlation, discriminant function, and factor analysis. Project in experimental design and analysis of data. 4 lec and arr. *Miles; F; A.*

880B Techniques in Electron Microscopy (6)

Principles and methods for preparation of biological specimens for ultrastructural analysis and research, and some associated techniques. Instruction in microscope operation and maintenance and darkroom techniques. Lab project and paper required. *Hikida; W; Y.*

B95 Doctoral Dissertation (1–15)
Research directed toward doctoral degree.
F; W, Sp, Su; Y.

Microbiology Courses (MICR)

511 General Microbiology (5)
Properties of microorganisms and their importance in our environment. Lab training in common microbiological methods. 3 lec, 4 lab. Not for microbiology majors. F; W.

512 Microbiological Techniques (4)
Prereq: 511. Semi-independent course gives extensive experience in use of bacteriological techniques and equipment; information retrieval. 2 lec, 8 lab. Not for microbiology majors. W; Y.

513A Pathogenic Bacteriology (3)
Prereq: 311. Microorganisms in relation to disease. Disease manifestations, diagnostic and control methods; some aspects of immunity. 3 lec. *Modrzakowski*; Sp; A.

513B Pathogenic Bacteriology Laboratory (2)
Pathogenic and clinical diagnostic bacteriological techniques; complements lecture material in 413A. 4 lab. *Modrzakowski*.

514 Virology (5)
Introduces graduate students to virology through lecture and laboratory exercises. *Biegalka*; Sp; Y.

515 Immunology (5)
Prereq: 311. Basic principles and key concepts of immunity. The cells, molecules, and tissues involved in immune recognition and response mechanisms that allow an individual to mount a dynamically protective defense barrier against cancer and a wide variety of foreign pathogens. 4 lec, 2 and arr lab. W; Y.

516 Immunochemistry (5)
Prereq: 311. In-depth study of the receptor molecules and cytokines involved in generating an immune response. Emphasis will be on antigen-antibody interactions and T cell receptor molecules. Demonstration of immunochemical techniques such as ELISA, immunofluorescence, affinity chromatography, cytokine assays, and western blotting. 2 lec, 6 and arr lab. F; Y.

517 Cellular Immunology (4)
Course presents the production of and interactions among immune cells within lymphoid organs and tissues such as maturation, development, and differentiation of B and T lymphocytes, antigen presentation, T cell recognition and activation into effector cells, immune regulation, tolerance, and hypersensitivity. Discussion of these immune phenomena as they relate to infectious diseases, cancer and transplantation immunity, immunodeficiency, auto-immune diseases, and vaccine development. 4 lec. Sp; Y.

518 Epidemiology (4)
Dynamics of spread, methods of treatment, and prevention of infectious diseases in humans. 4 lec. *Romoser*; F; Y.

525 Microbial Genetics (3)
For students majoring in microbiology, molecular biology, or applied biotechnology. In-depth study of the genetics of selected prokaryotes and their viruses. Topics include genetic elements of bacteria, mutations and mutagenesis, lysogeny and phage conversion, mechanisms of gene transfer and recombinations, regulation of gene expression and recombinant DNA. *Holzschu*; W; A.

527 Mechanisms of Gene Regulation (3)
Discussion of the molecular events that regulate gene expression to result in appropriate development and differentiation. *Biegalka*; W; Y.

541A Parasitology (3)
Etiology of human parasites, their transmission, diagnosis, and prevention. 3 lec. *Rowland*; W; Y.

541B Parasitology Laboratory (2)
Laboratory survey of protozoan and helminth parasites with emphasis on life cycles and identification. 4 lab. *Rowland*; W; Y.

544 Tropical Disease Biology (4)
Team-taught lecture/seminar course provides an overview of the nature, impact, and management of tropical diseases on our planet and takes a holistic approach in the examination of tropical diseases as systems. 4 lec. W; Y.

575 Microbial Ecology (4)
Examines the interactions of microorganisms with their biotic and abiotic surroundings, including interactions with plants, animals, other microorganisms, air, water, and soil. Additional topics include waste treatment, biogeochemical cycling, and biodegradation/bioremediation. *Coschigano*; F; Y.

611A Advanced Microbiology (4)
Intensive treatment of bacteria, viruses, and eucaryotic protists. F; Y.

611B Advanced Microbiology (3)
Prereq: 611A. Continuation of 611A. 3 lec. W; Y.

613 Advanced Pathogenic Microbiology (3)
Mechanisms by which microorganisms cause disease. Biochemical determinants of virulence factors. Selected topics on antagonism of host defense mechanisms. 3 lec. *Modrzakowski*; W; Y.

614 Animal Virology (4)
Covers molecular and medical aspects of animal virology. Emphasis on various mechanisms of virus replication and oncogenic transformation. Viral diseases, pathogenic mechanisms, interferon, and antiviral drugs also covered. Lab includes exercises in propagation of tissue culture and animal viruses. 3 lec. F; Y.

615 Advanced Immunology (4)
Advanced-level instruction on genetic and molecular mechanisms controlling humoral and cellular immune responses. Current research topics and immunological research techniques will be overviewed via readings of research periodicals. 3 lec. *Goodrum*; F; Y.

619 Microbial Physiology (4)
Prereq: 611, CHEM 590, 591. Intensive treatment of structure and function in representative microorganisms. Emphasis on energetics, transport, biosynthesis, regulatory systems, and cell behavior including chemotaxis and thermophily. 2 lec. Sp; Y.

640 Research Techniques in Microbiology I (6)
Basic theory and applications of specific research procedures used in microbiology. Special techniques are introduced for the study of microbial cells and their components. Concentration on microbial cell systems, tissue culture, and monoclonal antibody techniques. 3 lec, 6 lab. F; Y.

641 Research Techniques in Microbiology II (6)
Prereq: 640. Advanced analytical techniques introduced for application of research procedures in microbiology. Theory and practice of gas-liquid chromatography, density gradient centrifugation, gel electrophoresis, autoradiography, radioisotope tracer techniques, and special immunological procedures. 3 lec, 6 lab. W; Y.

682 Advanced Topics (1–3)
Specialized topics not otherwise available to advanced students. F; W, Sp; Y.

685 Research in Microbiology (1–15)
Unspecified research, not directly applicable to thesis. F; W, Sp, Su; Y.

695 Master's Thesis (1–15)
Research directly applicable to thesis. Graduate faculty; F; W, Sp, Su; Y.

Chemistry and Biochemistry

The Department of Chemistry and Biochemistry offers M.S. and Ph.D. programs in analytical, biological, inorganic, organic, and physical chemistry. All degree programs include teaching and research experience.

Although an undergraduate degree in chemistry accredited by the American Chemical Society provides the strongest foundation for graduate work, many successful students have held either a B.A. or B.S. in a physical or biological science or in engineering.

As an entering student, you take a standardized examination in the areas of chemistry in which you have had appropriate undergraduate work (analytical, biological, inorganic, organic, or physical). The results determine the level at which you will begin graduate study. During the first year, you are expected to complete 90 lecture hours of graded coursework in your area of major interest and 90 lecture hours of graded elective coursework. Acceptable performance on the standardized examination can lead to an exemption for one or more of these courses. The program of study is flexible to take advantage of your previous training and to meet particular needs in your area of study.

The M.S. program requires 45 graduate credits in chemistry and approved electives. A seminar course is required each quarter, and you must present one satisfactory seminar each year. An examination is given after one year of study to determine if you are qualified to continue graduate work. Failure of this examination may lead to a decision that you cannot receive an M.S. There is no foreign language requirement for the M.S. The average period of study is two and one-half years. You must defend your thesis orally at a public

meeting of your advisory committee. In lieu of a thesis, you may submit a paper that has been accepted for publication in an approved journal.

The Ph.D. program has no fixed number of required graduate credits but requires a minimum of 90 lecture hours of Ph.D.-level courses in your major area and 90 lecture hours of elective courses. You, your advisor, and your advisory committee will determine the course-work that you should complete. A yearly meeting of your committee is required. Your major advisor will determine the amount of research required for the dissertation. A seminar course is required each quarter, and you must present a satisfactory seminar each year. A qualifier examination is given after approximately one year of study to determine if you should continue in the program. A failure of this examination may lead to a decision that you cannot receive a graduate degree. During the second year of the Ph.D. program, you take monthly examinations on subjects announced in advance by faculty in your research area. Four of the first 10 examinations offered must be passed for the Ph.D. You must also present and defend a written research proposal. There is no foreign language requirement for the Ph.D. You must defend your dissertation orally at a public meeting of your advisory committee. Before the dissertation can be approved, a portion must have been accepted for publication in an approved journal. The average period of study for the Ph.D. is four and one-half years.

You must apply at least two weeks prior to the quarter for which you seek admission. Most students enter the chemistry program in the fall quarter. Entry during the academic year is possible but not generally encouraged. Although there is no formal deadline for applications for financial aid, early application (by February 15 for fall quarter) is strongly recommended.

Chemistry and Biochemistry Courses (CHEM)

500A Advanced Organic Laboratory (2)

Advanced lab techniques and instrumentation.

501 Organic Chemistry Survey (4)

Survey of important topics in organic chemistry including structure and bonding, stereochemistry, reaction mechanisms, structural determination, organic synthesis, and bio-organic chemistry.

520 Chemical Literature (4)

Chemical literature in journals, handbooks, monographs, and patents. Scientific writing.

530 Introduction to Toxicology (5)

Introduction to chemical, clinical, environmental, and forensic aspects of toxicology, types of poisons, how poisons act, treatment of acute poisoning, and control of poisonous materials.

531 Chemical Separation Methods (3)

Modern methods of separating components of complex mixtures with emphasis on operation of, and application to, analytical chemistry. Topics include liquid-liquid extractions, partition chromatography, ion-exchange, gas chromatography, high pressure liquid chromatography, exclusion chromatography, and electrophoresis.

532 Chemical Instrumentation and Electrochemistry (3)

Modern electrochemical techniques and instrumentation with emphasis on their application to analytical chemistry. Topics include potentiometry, specific ion electrodes, DC and AC polarography, pulse polarography, coulometry, chronocoulometry, cyclic voltammetry, and rapid scan voltammetry.

533 Spectrochemical Analysis (3)

Survey of spectrochemical instrumentation with emphasis on their operation and application in analytical chemistry. Topics include atomic absorption, atomic emission, molecular absorption, and molecular emission, and cover emission-absorption phenomena in the X-ray, ultraviolet, visible, and infrared regions of the electromagnetic spectrum.

534 Chemical Separation Methods Laboratory (1)

Prereq: 531 or concurrent. Laboratory work to accompany CHEM 531.

535 Chemical Instrumentation and Electrochemistry Laboratory (1)

Prereq: 532 or concurrent. Lab work to accompany 532.

536 Spectrochemical Analysis Laboratory (1)

Prereq: 533 or concurrent. Lab work to accompany 533.

551 Physical Chemistry (5)

For graduate students not majoring in chemistry. Includes thermodynamics, thermochemistry, equilibrium, solutions, electrochemistry, and kinetics.

553 Physical Chemistry (4)

Calculus-based study of thermodynamics with applications to chemical equilibria.

554 Physical Chemistry (4)

Prereq: 553. Continuation of 553. Thermodynamics of ionic solutions, kinetic theory of gases, chemical kinetics.

555 Physical Chemistry (4)

Prereq: 554. Continuation of 554. Introductory quantum theory of simple systems with applications to molecular structure and bonding. Introduction to spectroscopy and statistical thermodynamics.

558 Chemical Thermodynamics (4)

Concepts of energy and entropy and their use in predicting the feasibility and extent of chemical reactions.

559 Physical Chemistry (4)

Prereq: 554. Continuation of traditional topics in physical chemistry begun in 553 and 554 to include surfaces, structure of solids, mass and heat transport, electrical conduction, heterogeneous reaction kinetics, photochemistry, and polymer properties.

560 Spectroscopic Methods in Organic Chemistry (4)

Modern spectroscopic methods as employed in organic chemical research: NMR, IR, UV, ESR, and mass spectrometry.

571 The Physical Chemistry of Macromolecules (4)

Effects of structure and molecular weight on physical and chemical properties of macromolecules. Topics include molecular weight distribution, solubility, polymer conformation, different types of polymers, synthesis, and reactions. Both synthetic and natural polymers considered.

576 Modern Inorganic Chemistry (5)

Relationship between physical and chemical properties of inorganic substances and nature of bonding and structures involved.

579 Radiochemistry (5)

Application of radiation and radioactive isotopes to problems in chemistry and environmental sciences; detection and determination of radiation; safe handling and disposal of radioactive materials; other problems in environmental radiation safety.

580 Advanced Organic Chemistry (5)

Structural theory, stereochemistry, reactive intermediates, and reaction mechanisms.

586 Advanced Analytical Chemistry (5)

Fundamental principles of instrumental analysis. Electrochemistry, atomic and molecular spectroscopy, gas and liquid chromatography.

587 Forensic Chemistry (7)

Prereq: 533. Survey of chemical problems most frequently encountered in crime lab and their currently acceptable solutions, as well as special techniques not covered in other analytical chemistry courses. 3 lec, 6 lab.

589 Basic Biochemistry (5)

Prereq: 302 or 307. Survey course, including introduction to biochemical concepts and techniques, metabolic pathways, and information storage and transmission, with emphasis on directions of current biochemical research.

590 General Biochemistry I (4)

Protein chemistry, enzymology, and nucleic acid chemistry.

591 General Biochemistry II (4)

Prereq: 590. Bioenergetics, metabolism, and metabolic control systems.

592 General Biochemistry III (4)

Prereq: 591. Study of integrated molecular systems in biology.

630 Instrument Use and Maintenance (2-4)

Technical information concerning operation and maintenance of sophisticated instruments is presented. Includes preparation of users manuals and videotape presentations that explain and demonstrate techniques. Registration required for access to instruments. Credit allowed more than once, as subjects vary.

695 Research and Thesis (1-15)

Research and thesis as recommended by department.

700 Research Techniques (4)

Important skills and techniques of chemical research including glassblowing, vacuum techniques, separation methods, etc.

701 Advanced Organic Chemistry (4)

Prereq: 580. Organic syntheses.

702 Advanced Organic Chemistry (4)

Prereq: 701. Theoretical aspects of organic chemistry.

703 Physical Organic Chemistry (4)

Prereq: 702. Application of modern concepts to structure and reactivity in organic reactions of various mechanistic classes.

704 Heterocyclic Chemistry (4)

Theoretical and synthetic aspects.

705 Organometallic Chemistry (4)

Prereq: 576 and 580. Structure and reactivity of organometallic compounds.

706 Natural Products Chemistry (4)

Prereq: 702. Terpenes, steroids, alkaloids, and other natural products.

710 Special Topics in Organic Chemistry (4)

Selected topics of current interest.

711 Protein Chemistry (4)

Prereq: 590. Topics and techniques relevant to thorough understanding of current status of protein chemistry and enzymology. Includes isolation, purification, and characterization of proteins by standard techniques, active center characterization, and physicochemical features of proteins.

712 Biophysical Chemistry (4)

Prereq: 590. Applications of physical methods to biological systems, including UV visible, fluorescence, infrared, Raman, and nuclear magnetic resonance spectroscopies.

713 Bioenergetics and the Structure and Function of Biological Membranes (4)

Prereq: 592. Membrane biogenesis; development and intracellular trafficking; advanced topics in molecular physiology of membranes.

714 Control and Regulation in Molecular Biology (3)

Prereq: 590. Current concepts in chromosomal structure and function, genetic control of transcription, and translation control of protein synthesis.

715 Advanced Special Topics in Biochemistry (3)

Prereq: 590.

716 Enzymology (4)

Prereq: 590. A study of the subjects and techniques relevant to the structure and function of enzymes. Topics include enzyme kinetics, purification, characterization, and active site chemistry. Current research directions such as the construction of catalytic RNA molecules (ribozymes) and catalytic antibodies are emphasized, along with the recent role molecular biology techniques have played in the enzymology field.

726 Electroanalytical Chemistry (5)

Prereq: 532. Fundamentals and applications of potentiometry, conductometric titrations, coulometry, voltammetry, amperometric titrations, cyclic voltammetry, chronocoulometry.

727 Spectrochemical Analysis (5)

Prereq: 533. Modern instrumental methods of molecular spectroscopy including Raman, Fourier transform, IR and NMR, circular dichroism, and mass spectroscopy; recent methods of atomic spectroscopy including plasma sources, diode arrays, and television spectrometers; impact of computerization.

728 Theory and Principles of Analytical Separation (4)

Prereq: 586 or 531. Topics include liquid-liquid extractions, partition chromatography, ion exchange, gas chromatography, high pressure liquid chromatography, exclusion chromatography, and electrophoresis.

729 Introduction to Chemometrics (4)

Prereq: 586. Topics include multivariate calibration, experimental design and optimization, pattern recognition, signal processing, and multivariate curve resolution.

730 Special Topics in Analytical Chemistry (4-5)

Selected topics of current interest: electronics, signal processing techniques, surface analysis, modified and ultramicroelectrodes, hyphenated techniques.

750 Chemical Thermodynamics (4)

Prereq: 558. Application of thermodynamics to mixtures and solutions to take account of solvent-solute interaction and ionic effects.

751 Statistical Thermodynamics (4)

Prereq: 555 and 558. Derivation of thermodynamic principles and data from knowledge of size and shape of molecules and laws of mechanics.

753 Chemical Applications of Group Theory (5)

Prereq: 555. Develops foundations for application of elementary group theory to organize or simplify problems in quantum chemistry. Applications include molecular orbitals, molecular vibrations, and ligand field environments.

754 Chemical Quantum Mechanics (4)

Prereq: 555. Perturbation and variation theory with application to quantum chemistry; angular momentum; electron-spin; atomic structure. Some matrix theory.

756 Solutions (4)

Selected topics in solution thermodynamics such as stoichiometry, determination of equilibrium constants, activity coefficients, and other thermodynamic properties of solutions; theories of electrolytes: electrochemistry, and transport.

757 Chemical Kinetics (4)

Experimental methods of obtaining reaction rates, interpretation of rate data, and relationships between mechanism of reactions and rate equations of reactions.

758 Solid State Chemistry (5)

Develops foundation of basic surface science concepts and techniques. These concepts include structure of clean and adsorbate covered surfaces, chemical bonding of adsorbates, energy transfer mechanisms on surfaces, and catalyzed surface reactions.

761 Molecular Structure I (4)

Prereq: 555. Theoretical principles of rotational, vibrational, and electronic spectra of diatomic and polyatomic molecules.

762 Molecular Structure II (4)

Prereq: 555. Theoretical principles of nuclear magnetic resonance and electron spin resonance spectroscopy.

763 Radiation and Photochemistry (4)

Comparison of radiation and photochemical reactions; primary and secondary processes; general treatment of free radical mechanisms; isolation and detection of free radicals; radiation dosimetry; chemical and biological effects of radiation.

764 Special Topics in Physical Chemistry (3-4)**775 Theoretical Inorganic Chemistry (4)**

Prereq: 576. Theoretical principles underlying physical and chemical behavior of inorganic substances.

776 Chemistry of the Representative Elements (4)

Prereq: 576. Descriptive chemistry of A-group elements.

777 Chemistry of Transition Elements (4)

Prereq: 775. Descriptive chemistry of transition elements and their coordination compounds.

778 Chemistry of Heavy Elements (4)

Prereq: 775. Descriptive chemistry of lanthanides, actinides, and selected heavy metals.

790 Special Topics in Inorganic Chemistry (3-4)**891 Inorganic Chemistry Seminar (2)**

Required of inorganic chemistry majors. Selected topics from current literature presented by participating students and staff.

892 Organic Chemistry Seminar (2)

Required of organic and biological chemistry majors. Selected topics from current literature presented by participating students and staff.

893 Analytical Chemistry Seminar (2)

Required of analytical chemistry majors. Selected topics from current literature presented by participating students and staff.

894 Physical Chemistry Seminar (2)

Required of physical chemistry majors. Selected topics from current literature presented by participating students and staff.

895 Doctoral Research and Dissertation (1-15)

Research and dissertation as recommended by department.

Conservation Biology

The Program in Conservation Biology offers an interdisciplinary graduate conservation biology certificate. The program applies a multifaceted understanding of the factors affecting the conservation of biological diversity. It is centered in the Department of Biological Sciences but includes faculty members from the Departments of Environmental and Plant Biology, Economics, Geography, and Political Science.

Students enrolled in any master's or doctoral program at Ohio University are eligible to apply for the certificate. Each application for the certificate program is reviewed by an oversight committee composed of three faculty representatives from participating departments. Each student in the program chooses a certificate advisor to oversee the completion of requirements.

The requirements for the certificate are the completion of BIOS 581 Animal

Conservation Biology, BIOS 700 Seminar in Conservation Biology, and three courses from the following list for a total of 17–20 credit hours. Two of the three courses must be outside your major field of study. The certificate is awarded upon fulfillment of these requirements and completion of the graduate degree.

The courses listed here are offered by five departments within the College of Arts and Sciences. In addition, up to five hours of courses offered under titles such as Special Topics or Colloquium that focus on aspects of conservation biology may be applied toward the certificate with the approval of your certificate advisor.

ANTH 578	Human Ecology (5)
BIOS 577	Population Ecology (4)
BIOS 57B	Community Ecology (4)
BIOS 579	Evolution (4)
PBIO 525	Plant Ecology (5)
ECON 513	Economics of the Environment (4)
ECON 514	Natural Resource Economics (4)
GEOG 521	Population Geography (5)
GEOG 547	Resource Management (5)
POLS 525	Environmental and Natural Resource Politics (5)

Contemporary History Institute

The Ohio University Contemporary History Institute, created in 1987, offers a unique course of interdisciplinary study, mainly on the graduate level, in the application of post-1945 history to current policy issues. The institute is centered in the Department of History, but it also draws faculty and students from the Departments of Economics and Political Science, the E. W. Scripps School of Journalism, and the Honors Tutorial College.

The institute does not grant degrees but offers a certificate in contemporary history that serves as an adjunct to M.A. and Ph.D. degrees in history, M.A. degrees in economics and political science, the M.S. in journalism, and the Ph.D. in mass communication (journalism sequence). The institute's certificate also can be earned in connection with a four-year Honors Tutorial College

bachelor's degree in one of the participating departments. Students receive the institute's certificate after satisfactorily completing a sequence of interdisciplinary seminars and tutorials focusing on the methodology, themes, and issues in contemporary history and writing a thesis or dissertation on some aspect of that subject that meets the requirements of the degree-granting department.

Admission

Apply for admission in history, economics, journalism, or political science using the standard application form but indicating contemporary history as the specific area within the graduate major in which you wish to work. If you are an Honors Tutorial College student, apply through your departmental director of tutorial studies.

The Contemporary History Institute admissions committee will evaluate your application only after you have been granted admission to one of the participating departments. All applicants to the institute are considered automatically for fellowships. You may be asked to provide additional supporting material.

Admission to the Contemporary History Institute is granted only for classes beginning in the fall quarter of each academic year. Applications for fall must be received by February 1.

Requirements

1 You must formally enroll in an existing M.A. program in the Department of History, Economics, or Political Science; the M.S. program in the E. W. Scripps School of Journalism; or the Ph.D. program in history or mass communication (journalism sequence). Fourth-year Ohio University Honors Tutorial College students majoring in participating departments also are eligible. Upon completing all requirements in one of those programs, you will receive the appropriate degree.

2 Within your degree-granting department, you must concentrate no less than half the required coursework in courses that deal in a substantial way with the post-1945 period.

3 You must complete the sequence of courses listed below.

Contemporary History Institute Courses (CH)

601 Introduction to Contemporary History (5) Investigates the nature of contemporary history: major philosophical and conceptual problems; substantive content; interpretive trends; opportunities for interdisciplinary analysis. Y.

602 Themes in Contemporary History (5) Examines major developments that have shaped the contemporary world, such as nationalism, colonialism, the information revolution, and economic integration. W; Y.

603 Issues in Contemporary History (5) Focuses on contemporary issues—problems or questions with policy implications. Places contemporary issues in historical perspective and considers different methodological approaches to understanding them. Sp; Y.

604 Tutorial in Contemporary History (5) Individual consultation with one or more participating faculty with a view to providing an appropriate intellectual and methodological context for writing the thesis or dissertation on a contemporary history topic in one of the participating departments. Emphasis on interdisciplinary analysis. D.

Economics

As a student beginning graduate work in economics, you should ordinarily have some undergraduate training that includes courses in the social sciences or business administration. However, a wide variety of areas of concentration relate to or provide appropriate background knowledge for advanced study in economics. If your undergraduate major is not economics or a related field, you will take a placement test to determine whether you need to take ECON 503 Microeconomics and/or ECON 504 Macroeconomics.

Undergraduate courses in principles of economics, statistics, intermediate micro and macro theory, and some quantitative orientation are ordinarily prerequisites for graduate work in this area, although you may be permitted to make up these deficiencies while pursuing a graduate program. Your undergraduate program must be approved by the department admissions

committee before you begin graduate work. You are advised to take the Graduate Record Examination and submit scores with your application. If you are an international student, take the Test of English as a Foreign Language and submit scores with your application.

It is preferable that you enter the graduate program during the summer or fall quarter. It is possible, however, to begin studies in the winter or spring quarter. For financial assistance, it is advisable to apply before March 1 for the following fall quarter.

For a Master of Arts, you are required to

1 complete a core requirement comprising 603A & B Advanced Microeconomic Theory, 604A & B Advanced Macroeconomic Theory, 635 Econometrics, 638 Applied Econometrics, 500 Mathematical Economics Foundations, 501 Statistical Foundations, and 698 Colloquium

2 concentrate in one area from the following list of fields: business economics; econometrics; economic history; economic planning, growth, and development; industrial organization; international economics; labor economics; monetary economics; natural resources; public finance and policy; and urban and regional economics

3 complete a research paper in a topic within the area of concentration.

You may use additional electives to complete the required 61 graduate hours.

Economics Courses (ECON)

500 Mathematical Economics Foundations (5)
Introduction to differential calculus, integral calculus, and linear algebra with economic and business models and applications. Same as QBA 500.

501 Statistical Foundations (5)
Basic topics of statistics are discussed, including descriptive statistics, probability theory, random variables, mathematical expectation, binomial and normal distributions, sampling theory and central limit theorem, point and interval estimation, and hypothesis testing.

503 Microeconomics (5)
Analysis of prices, markets, production, wages, interest, rent, and profits.

503W Microeconomics (3)
Analysis of prices, markets, production, wages, interest, rent, and profits. Accelerated workshop course for M.B.A. students.

504 Macroeconomics (5)
Factors determining level of nation's economic activity and growth and stability in nation's economy.

504W Macroeconomics (3)
Factors determining level of nation's economic activity and growth and stability in nation's economy. Accelerated workshop course for M.B.A. students.

505 Managerial Economics (5)
Prereq: non-econ. Decision making in enterprise: market environment; measurement of influence of policy and nonpolicy variables on sales and cost; empirical studies of market structure and pricing. (Not open to students who have had 505W or to graduate students in economics.)

505W Managerial Economics (3)
Prereq: non-econ. Decision making in enterprises: market environment measurement of influence of policy and nonpolicy variables in sales and costs; empirical studies of market structure and pricing. Accelerated workshop course for M.B.A. students. (Not open to students who have had 505 or to graduate students in economics.)

506 Monetary Theory and Policy (5)
Use of economic theory to formulate monetary policy for minimizing cyclical fluctuations in economic activity.

507 History of Economic Thought (5)
Major economic doctrines: mercantilists and cameralists, physiocrats, Adam Smith and classical school, historical school, Austrian school, Alfred Marshall, and neoclassicists.

510 Urban Economics (5)
Application of economic analysis to urban problems; urban economic growth and structure (location patterns, land use and environment, urban transportation, and housing); human resources in urban economies and the public sector in a metropolitan context.

511 Inequality of Personal Wealth and Income (5)
Prereq: course in statistics. Quantitative and qualitative differences in wealth and income between low, middle, and high income groups in society using historical, statistical, and mathematical techniques.

512 Economics of Poverty (5)
Incidence, causes, and consequences of poverty in affluent society. Economic theory, history, statistics applied to analysis of poverty reduction measures.

513 Economics of the Environment (5)
Economic analysis of such environmental matters as air, water, and noise pollution; population growth; and land use. Emphasis on use of economic theory and empirical research in evaluating environmental policies.

515 Economics of Health Care (5)
Allocating resources to health care, economics of hospital care, solution of health care problems, paramedics, prepaid plans, malpractice problems.

520 Labor Economics (5)
Economic forces generating modern labor problems: history of labor movement, labor in politics, labor-management relations, wages, full employment.

521 Labor Legislation (5)
Prereq: 520. Law bearing upon labor problems: labor relations legislation, old-age and unemployment insurance, workmen's compensation, wages-and-hours legislation.

522 Economics of Human Resources (5)
Current development in theory, empirical research, and policy with respect to investment in human resources, economic value of education, manpower programs, and growth.

525 Public Policy Economics (5)
Survey of economics approach to analyzing public policy issues. Uses concepts of welfare economics, public choice economics, and cost-benefit analysis as applied to samples of policy subjects.

530 Public Finance (5)
Role played by government as user of economic resources and redistributor of income: need for government's entry into economy, optimal size of government, selection of tax and expenditure schemes, and effects of government economic activity on the private sector.

531 Economics of Transportation (5)
Economics of transport pricing, regulation of transport, and national transport policy.

532 Industrial Organization (5)
Market structure, especially oligopoly, and firm behavior in price and nonprice competition. Topics include location, product quality, advertising, research and development, and patent incentives. Emphasis on economic welfare.

533 Government and Agriculture (5)
American agriculture as an industry; economics of government policies and programs; consideration of forces and objectives in policy formation.

535 Economics of Energy (5)
Economic theory applied to energy policy issues in the U.S., including questions of sources of supply, conservation, pollution control, foreign dependence, monopoly control, special interests, and future generation equity.

537 Government Regulation of Business (5)
Economics of regulated industries. Economic underpinnings, regulatory instruments, and impact on firm and society. Industries of interest include various public utilities, communications, and transportation. Also focuses upon product and labor safety.

540 International Trade Theory (5)
International trade patterns, theories of absolute and comparative advantage, classical and modern trade theory, tariffs, quotas, nontariff barriers, preferential trading arrangements.

541 International Monetary System (5)
How exchange rates are determined, fixed vs. flexible rates, government intervention, fiscal and monetary policy in open economy, transmission of inflation and unemployment among nations, international capital movements, covered interest arbitrage, forward exchange, Eurocurrency markets.

542 International Economic Policy (5)
Prereq: 540. Current economic developments of foreign and U.S. economic policy. Commercial treaties and tariff policy; exchange rate instability; balance of payments problems including LDC debt situation; international liquidity issues; trade relations among industrial, underdeveloped, and former Soviet-bloc countries; multinational corporations; roles of institutions such as World Bank, International Monetary Fund, and GATT.

544 Futures Markets (5)
Prereq: 360 or FIN 327. Examines futures markets in terms of the instruments traded, the institutional features of the markets, the participants, and their economic strategies, including speculation and hedging. Describes and analyzes the various futures and options markets to understand how the exchanges operate and to realize the pitfalls and dangers, as well as the possibilities and opportunities of participation.

550 Economic Development (5)

Nature of, obstacles to, and future possibilities for economic growth of nations; problems of underdeveloped countries; studies of selected countries.

552 Economic History of the United States (5)
Economic development of United States. Growth of banking, manufacturing, labor unions, and agriculture from colonial times to present.

553 European Economic History (5)
Economic growth of developed countries; industrial revolutions in Great Britain, France, Germany, the former Soviet Union, and Japan. Historical experiences of these countries related to various theories of economic change.

554 Latin American Economic History (5)
Fundamental assumption is that current problems of economic development of Latin America can be better understood if student has solid knowledge of economic history of region. One-half to two-thirds of course covers economic history with emphasis on larger countries such as Brazil, Argentina, Chile, Peru, and Mexico. Particular attention given to legacies of past which affect current foreign private investment, etc. Latter part of course discusses current problems such as declining terms of trade, import substitution, urbanization, national and regional planning, etc.

555 African Economic Development (5)
Prereq: 550. African societies as traditional economies and in process of modernization.

561 Monetary History of the United States (4)
Correlation of developments in American history with development of monetary institutions, policy, and theory. Evolution of commercial and central banking and relationship to economic activity in history of U.S.

570 Comparative Economic Systems (5)
Theoretical and institutional characteristics of capitalism and socialism with emphasis on prevailing economic systems in the U.S., England, and Russia.

573 Economics of Southeast Asia (5)
Prereq: 550. Economic characteristics, development problems, strategies, and prospects of countries of Southeast Asia.

574 Economics of Latin America (5)
Prereq: 550. Economics of Latin American countries, prospects for economic developments of the region, nature and origin of institutional obstacles to economic change. Economic heritage of colonial period and subsequent evolution of economic institutions, resources of the area and utilization, and trends in economic activity and policy in post-WW II period.

575 The Chinese Economy (5)
Prereq: 550. China's early industrialization, 1880–1931; socialist transformation of each economic sector, 1949–1967; overall performance of Chinese economy and each economic sector, and Maoist revision of orthodox Marxist-Leninist economic doctrines.

600 Managerial Economics (5)
Prereq: 303 or 305. Measuring economic relationships, analyzing market behavior, and examining some major economic decisions of business firm.

601 Macroeconomics and Business Fluctuations (5)
Analyses of demand for money, inflation, interest rates, capital growth, asset markets, financial intermediaries, and the relationship between money and the business cycles. Other topics include national income, savings, investment, unemployment, fiscal, and monetary policies.

603A Advanced Microeconomic Theory I (5)
Utility analysis, individual demand, and market demand functions. Production and cost behavior of firm under perfect competition, factor pricing under perfect competition, general equilibrium, and welfare economics.

603B Advanced Microeconomic Theory II (5)
Prereq: 500 and 501, or 603A. Utility maximization, properties of Marshallian demand function, Slutsky matrix, Hicksian demand function and duality. Technology set, production and input requirement sets, profit maximization, function, supply map, general law of supply and duality. Theory of imperfect markets.

604A Advanced Macroeconomic Theory I (5)
National income accounting, classical macro-model, simultaneous equilibrium in goods and money market in Keynesian model. Aggregate supply under flexible wages and fixed nominal wage. Simultaneous equilibrium in goods, money, and labor markets.

604B Advanced Macroeconomic Theory II (5)
Prereq: 500 and 501, or 604A. Price expectations, rational expectations, Phillips curves, stabilization policy, new classical macroeconomics, wealth in a macro model, open economy macro equilibrium, and econometric literature of macro models.

635 Econometrics I (5)
Prereq: 500 and 501. Basic topics of econometrics are discussed, including simple linear regression models, violation of classical assumptions (heteroskedasticity, autocorrelation, etc.), multiple linear regression models, multicollinearity, specification errors, dummy variables models, and basic simultaneous equations models.

636 Econometrics II (5)
Prereq: 635. Advanced topics of econometrics are discussed, including convergence in distribution, multivariate normal distributions, distribution of quadratic forms, large sample tests (LR, Wald, LM tests), generalized linear regression models, seemingly unrelated regression models, simultaneous equations models, and generalized method of moments estimators.

637 Applied Forecasting (5)
Prereq: 501. Simple forecasting methods, forecasting with econometric approach, time series methods, and the Arima models. Empirical model building using real-life data and these models.

638 Applied Econometrics (5)
Prereq: 636. Basic techniques of empirical econometric modeling are introduced and applied topics of econometrics are discussed. Applied topics include specification error tests (RESET, CUSUM, etc.), model selection tests, causality tests, unit root tests, cointegration tests, error correction models, distributed log models, logit and probit models, limited dependent variables models, GARCH-type models, and translog cost functions.

639 Statistics and Econometrics: Theory and Application (5)
No credit if 501 and/or 635. Probability theory and hypothesis testing, classical linear regression and various diagnostic tests and remedies for violations of classical assumptions, and various forecasting models.

640 International Trade and Financial Economics (5)
No credit if 540 and/or 541. The benefits from international trade. The law of comparative advantage, the factor endowment explanation of international trade, and other theories of international trade. Other topics include foreign exchange markets, interest arbitrage, portfolio theory, balance of payments, and international banking.

644 Financial Derivatives (5)
No credit if 544. A risk management course dealing with contract specifications. Characteristics of options and trading procedures, and the pricing mechanism that joins commodity, options, futures, and futures options markets.

685 The Methodology of Economics (5)
Economics as a scholarly discipline. Nature and role of theory in economics. Relationship between economic theory, hypothesis formulation, and methods of empirical testing of hypotheses.

691 Seminar in Economics (2–6)
Seminars in following general areas: theory and thought; growth and development; monetary and fiscal; theory and policy; labor and human resources.

693 Readings in Economics (1–6)
Readings in selected fields in economics under direction of staff member.

696 Master's Seminar (5)
Writing of scholarly papers in areas of economics. Required of all master's candidates.

697 Independent Research (1–12)
Research in selected fields in economics under supervision of staff member.

698 Colloquium (1)
Selected topics of current interest. Required of all graduate students.

English

Master's Program

Students enter an M.A. program in English for a variety of reasons. Some wish simply to extend their liberal education beyond the bachelor's level; others want professional training for high school or junior college teaching; still others see the M.A. as a stepping stone to the Ph.D. and a career in college teaching. The Department of English offers an M.A. program that meets the diverse needs of these different students. We believe all students should have a thorough grounding in the basic elements of literary study; thus, all students must satisfy a common set of core requirements. We also believe, however, that you should have the right to give your studies a particular emphasis; thus, we offer a choice of seven departmental concentrations. These concentrations are carefully selected groups of courses that give each master's program a distinctive focus.

Our M.A. program is a two-year undertaking, although full-time students who are not teaching associates may complete it in less than two years.

Admission. Application must be made to the Office of Graduate Student Services. You should present at least 27 quarter hours (18 semester hours) of superior work on the undergraduate level in English language and literature. You should also submit evidence of having completed one full year of college-level foreign language beyond the freshman-level language requirement. This can be either one year of intermediate (sophomore) level or one year of advanced (junior or senior level) foreign language. You may apply if you do not meet the foreign language prerequisite but otherwise have outstanding qualifications for graduate study; however, if accepted, you must complete two quarters of a graduate foreign language reading course before graduating. Applications for admission also will be considered from students who have had extensive training in academic fields closely related to English. You should arrange for letters of recommendation from three professors with whom you have studied on the undergraduate level to be sent to the chair of the graduate committee in English.

You must, in addition, submit your scores for the Graduate Record Examination (general test only), a letter of purpose, and a writing sample. For potential creative writing students, the writing sample should be a portfolio of poems, a manuscript of short fiction, or a selection of creative nonfiction, which should be mailed to the director of the creative writing program. All other applicants should submit to the chair of English graduate studies a critical essay completed for undergraduate academic credit at the junior or senior level.

You must apply by February 1 for entry in fall quarter of the following academic year.

M.A. Requirements. To pursue the Master of Arts in English, you must satisfy the following requirements:

1 Bibliography and Methods. ENG 593 Bibliography and Methods deals with enumerative and descriptive bibliography and methods of scholarship. It also provides a general introduction to graduate study and research in English literature and language.

2 English Language. The English language requirement can be met by one of two courses—ENG 503 English Language or ENG 504 American English.

3 The Teaching of English. ENG 591 Problems in Teaching College English, ordinarily taken in your first quarter of residence, is designed to offer various kinds of practical and theoretical information and discussions about teaching.

4 Literary Theory or Criticism. You will take at least one course that has as its primary focus the theory of literature or the strategies of literary analysis and criticism.

5 Master's essay or thesis. The master's essay is a scholarly essay of publishable quality, substance, and length, written as an extension of work done in a seminar but researched and reshaped to meet professional standards of scholarly publication. The master's essay prospectus and the essay are submitted during the winter and spring quarters of your second year.

Like the master's essay, the master's thesis is expected to show originality, rigor of argument, and thoroughness of research and documentation. It should, however, include more extensive research than a master's essay, particularly more detailed analysis of the theoretical approach being used, a wider and deeper survey of research and scholarship, and a more thorough contextualization of the central argument. The creative writing thesis is a piece of original creative writing.

6 Area distribution. You are required to take seminars in at least three of the following six periods:

Medieval Language and Literature
Renaissance
Restoration and Eighteenth Century
Nineteenth Century
American Literature
Twentieth-Century English and American Literature

Of these three seminars, one must focus primarily on literature before 1700, one on literature after 1700, and one on American literature.

7 Departmental concentration. You are required to take a sequence of three courses from one of the following concentrations:

Literary History
Creative Writing
Literary Criticism
Teaching of Composition
Women's Studies
English Language

8 Foreign language. If you have not met the foreign language prerequisite for admission, you must complete two quarters of a graduate foreign language reading course.

Doctoral Program

The Ph.D. in English is designed primarily as professional training for teachers and scholars of literature, composition, and creative writing. Such training requires at least four elements: a solid general background in literary history, a detailed knowledge of a specialized area, successful completion of a scholarly, critical, or creative dissertation, and—for those with associateships—experience teaching a variety of courses.

Admission. If you have a master's degree from a school other than Ohio University and wish to be admitted to the doctoral program, you must apply for admission to the Office of Graduate Student Services. Your application should include complete graduate and undergraduate transcripts, Graduate Record Examination scores, three letters of recommendation, a statement of purpose, and a writing sample.

Ph.D. Requirements. To earn a Ph.D. in English, you must fulfill the following requirements:

1 M.A. requirements. If your M.A. program did not include the following requirements or their equivalents, you must fulfill them as part of the Ph.D. program: ENG 591 Problems in Teaching College English, ENG 593 Bibliography and Methods, a course in literary theory, and a course in the history of the English or American language.

2 General course requirements for doctoral students in literary history. You are required to take three doctoral seminars (numbered 700 or above) in an area outside your area of specialization. You are also required to complete two elective graduate courses, which may be within or outside your area of specialization.

3 General course requirements for doctoral students in creative writing. You are required to take two doctoral seminars (numbered 700 or above) in an area outside your area of specialization. You are also required to take two workshops a year for the first two years of your program, including one in a genre that is not your primary one, and a fifth workshop in your third year as part of your preparation for the creative writing dissertation.

4 Colloquium, composition, and theory requirements. You are required to take the doctoral colloquium on the profession of English teaching and research during all quarters of coursework.

5 Specialized course requirements. You must take at least two doctoral seminars in your area of specialization, chosen from a list of six literary periods and a composition option.

6 Exam requirements. Ph.D. area exams are given in the spring of your second year of coursework and consist of three portions:

a Dissertation area (quite circumscribed, e.g., an author)—oral exam

b Period of specialization (one of the six historical periods)—written exam

c Tradition (a reading list, including works from at least two periods that are not your period of specialization and that place the dissertation area in a deeper historical perspective, e.g., a genre)—written exam

The reading lists for all three portions of the exam will be drawn up by your examining committee with your consultation.

7 Foreign language requirement. All Ph.D. students will have reading knowledge of one foreign language, to be proved by the Princeton exam or equivalent.

8 Dissertation and oral presentation. The main criterion for the dissertation is quality, not quantity. You are encouraged to plan a dissertation that is original, significant, and ideally, publishable. The number of pages is not crucial; the finished dissertation may fall below the usual 150 to 200 pages, but the project should none-

theless require an investigative process equivalent to that required of the dissertation of traditional length. Thus, a self-contained section of a proposed book-length study may satisfy the dissertation requirement.

Once a topic has been decided upon, you and your advisor will draw up a prospectus to be approved by the dissertation committee.

In lieu of the traditional oral examination, you will deliver a public lecture on some aspect of your dissertation and lead a discussion on the work.

Supervised Teaching. All Ph.D. students holding associateships are expected to teach as part of their professional training. Because Ohio University is a moderate-sized state university, it has a wide variety of undergraduate English courses to be staffed. Consequently, graduate associates receive considerable experience in teaching different courses. As a Ph.D. graduate associate, you will probably leave the university having taught at least three or four different courses at the freshman through junior levels. Although you will have received supervision, you will have been primarily responsible for organizing and teaching these classes. Recent Ph.D. graduate associates have found this varied experience particularly valuable when they enter the professional job market.

English Courses (ENG)

503 English Language (5)

Sounds, inflections, syntax, and vocabulary of English from 1500 to present. Emphasis is upon language of Shakespeare.

504 American English (5)

Historical and geographical development of American English from a linguistic point of view.

511 18th-Century Novel (5)

Development of novel form in 18th century. Defoe through Austen.

512 19th-Century Novel (5)

Critical analysis of novels by Dickens, Thackeray, Trollope, the Brontës, Eliot, Meredith, and Hardy.

515 19th-Century Prose (Nonfiction) (5)

Studies in nonfiction prose, mainly the personal essay, literary criticism, social criticism, biography.

520 Stylistics (5)

Problems in the description and analysis of style in literature.

524 Shakespeare (5)

Intensive study in specific critical and historical problems.

531 A Major Medieval Genre (5)

Development of major genre: lyric, epic, romance, or drama; close critical attention to representative texts.

532 Renaissance Drama (1590–1642) (5)

English drama (excluding Shakespeare) from Ben Jonson to closing of theaters.

536 History of Criticism (5)

Critical theory and practice.

537 History of Criticism (5)

Continuation of 536.

540 Studies in Comparative Literature (5)

Literary movements, themes, or genres. Different topic studied each time offered, e.g., symbolist and surrealist movement, baroque in western literature, concept of realism or romanticism, grotesque in literature.

541 Studies in Comparative Literature (5)

Continuation of 540. See 540 for description.

542 Studies in Comparative Literature (5)

Continuation of 540 and 541. See 540 for description.

555 English Education Workshop (1–5)

Prereq: teaching certificate or equiv. Studies in principles, problems, approaches, and issues in teaching of English from elementary school to post-secondary. Topics determined according to need and demand.

561 Colloquium (5)

Specific interdisciplinary problems to be assigned each quarter.

562 Colloquium (5)

See 561 for description.

563 Colloquium (5)

See 561 for description.

570 Studies in Literature (5)

Advanced study of a period or of some aspect of a period (a movement, genre, author, etc.) of English or American literature. Designed to supplement undergraduate training and provide intensified training in areas of concentration. Following areas scheduled regularly: (A) Medieval language and literature, (B) Age of Chaucer, (C) 16th century, (D) Spenser, (E) 17th century, (F) Milton, (G) Restoration, (H) Earlier 18th century, (I) Later 18th century, (K) Romantic poets, (L) Major Victorian poets, (M) Minor Victorian poets, (N) 20th century, (O) American literature to Civil War, (P) American literature, Civil War to WWI, (Q) African American literature.

575 Theory and Teaching Technical Writing (5)

Problems in teaching technical writing. Practice in writing feasibility studies, proposals, progress reports, and a range of minor items from abstracts to letters of transmittal. Techniques and standards of good business and professional writing.

580 Internship (4–5)

Internships in various university offices provide firsthand, on-the-job experience in areas where you may usefully employ your verbal skills and aptitudes. Coordinated by and evaluated by graduate chair in English and director of office in which you are placed.

585 History of Books and Printing (4)

Broad introduction to history of the book and its place in development of Western culture from ancient world to present.

590 Independent Reading (1–5, max 15)

Directed individual reading and research.

591 Problems in Teaching College English (1-5)
Introduction to methods of teaching literature and writing, with inquiries into various critical approaches, remediation, rhetorical theory, teaching aids, evaluation, counseling and coordination of student, and institutional needs.

591A Teaching College English II (3)
English 591A is designed for teaching associates who have full responsibility for their own sections of English 151 (Rhetoric and Writing), and who have in the previous quarter taken English 591 (Teaching College English I) or its equivalent. The purpose of English 591A is to provide further training and pedagogical assistance for T.A.s teaching English 151, to continue the examinations of theory and pedagogy begun in English 591, to introduce T.A.s to teaching writing courses other than 151, and, most importantly, to offer T.A.s one-on-one observations, followed by evaluations and assistance in improving their teaching.

592A Major Rhetorical Theories and the Teaching of Composition (5)
Introduction to major rhetorical theories underlying modern composition pedagogy. Invention, form, and style are examined from historical perspective.

592B Composition Research and Teaching (5)
Graduate-level survey of recent and significant research on writing process (composing, revising, editing, audience analysis); other problems in teaching writing also studied (evaluation, basic writing, writer's block, and other special problems).

592C Rhetoric in Reading (5)
Links teaching of writing to teaching of reading through study and application of contemporary theories of reader-text interaction.

592D The Rhetorical Tradition and the Teaching of Writing (5)
Relates classical rhetorical theory to developments in contemporary rhetorical theory, criticism, practice, and pedagogy.

593 Bibliography and Methods (5)
Enumerative and descriptive bibliography; methods of criticism and scholarship.

650 Master's Essay (5)
Preparation of master's essay prospectus: topic, review of relevant criticism, and methodology to be used in the essay.

651 Master's Essay (5)
Prereq: 650. Completion of master's essay.

690 Creative Writing Seminar (5)
Prereq: 6 hrs creative writing. Criticism of manuscripts and discussion of problems of form.

691 Creative Writing Seminar (5)
Prereq: 6 hrs creative writing. Continuation of 690.

692 Creative Writing Seminar (5)
Prereq: 6 hrs creative writing. Continuation of 690 and 691.

694 History of the Essay (5)
Surveys the history of the essay and its varieties: familiar, literary, philosophical, critical, theoretical, and personal.

695 Thesis (5-10)

701 Formal Stylistics (4)
Research on selected topic in formal characterization of texts.

715 Theory of Teaching Literature (5)
Discussions of theoretical and practical problems of teaching literature in colleges and universities.

716 Apprenticeship in Teaching Literature (5)
Prereq: perm. Experience in teaching upper-level undergraduate literature courses in specialized areas by observing and teaching with outstanding graduate instructors.

724 Problems in Shakespeare (5)
Prereq: Ph.D. applicancy. Intensive research in specific problems in area of Shakespeare criticism and scholarship.

765 Theory of Literature (5)
Investigations into nature of literature and problems of practical literary criticism.

770-776 Seminars in Literature (5)
Prereq: Ph.D. applicancy. Seminars customarily offered every year in each of seven areas. In any particular year, multiple seminars may be offered in same area (e.g., a seminar in early Renaissance and one in late Renaissance or a seminar in Romantic and one in Victorian).

770 Medieval (5)

771 Renaissance (5)

772 Restoration and 18th Century (5)

773 19th Century (5)

774 20th Century British and American (5)

775 American (5)

776 Comparative Literature (5)

777 Colloquium in the Profession of English Teaching and Research (1)

Prereq: Ph.D. applicancy. Prepares students for the profession of college teaching and research in English.

780 Special Studies Seminar (1-5)
Prereq: Ph.D. applicancy. Seminars on individual writers and individual works. Offered when there is student demand or a widely recognized specialist on staff.

781 Research (1-15)
Covers period when student is doing necessary research for prospectus. Also used to cover special research courses, e.g., problems in editing, problems in historical research, etc.

782 Research (1-15)
Continuation of 781. See 781 for description.

791 Professional Issues in Teaching College English (1-5)
Colloquium for apprentice teachers designed to explore alternative approaches to classroom planning and presentation. Encourages exchange of ideas and problems among teachers; evaluation methods, syllabi, and texts; development of a sense of professionalism in teaching.

792E Reading, Writing, and Pedagogy in the Information Age (5)
Investigates recent debates about the effects of electronic media on post-secondary literacy and writing instruction within the context of English studies. Emphasizes hands-on experience with electronic discourse through participation in electronic venues and composition in digital media.

895 Dissertation (1-15)

Environmental and Plant Biology

Doctor of Philosophy and Master of Science degree programs are offered in biochemistry, cell biology, ecology, ethnobotany, evolution, molecular biology, plant morphology, mycology, paleobotany, plant physiology, and plant systematics. (The doctoral degree is awarded through the Department of Biological Sciences.) The department

also participates in the interdisciplinary M.S. and Ph.D. programs in molecular and cellular biology and the M.S. program in environmental studies.

To begin graduate study, you must have at least 24 quarter hours (or equivalent) of botany and/or related biological sciences. You also must have completed genetics, organic chemistry, and quantitative skills (i.e., calculus, statistics, or computer science). You may eliminate deficiencies in undergraduate preparation during the course of graduate study. Scores from the aptitude test of the Graduate Record Examination are required and the biology advanced test is recommended. Foreign applicants whose native language is not English must submit scores from the Test of English as a Foreign Language (TOEFL) as an evaluation of English proficiency.

For Ph.D. students, an advisory committee will determine the program of study, including coursework, foreign language, and quantitative skills (e.g., calculus, statistics, computer science). All graduate students are required to teach a minimum of two quarters during their tenure in the department. A research thesis (M.S.) or dissertation (Ph.D.) resulting from original research is required. A nonthesis terminal M.S. degree is also an option.

Applications for admission to graduate study in environmental and plant biology are accepted during all quarters. Applications for financial aid for the following academic year should be received by February 15.

Environmental and Plant Biology Courses (PBIO)

508 Vascular Plant Morphology (6)
Comparative morphology, anatomy, and life histories of vascular plants. 3 lec, 6 lab. *Cantino, Rothwell; W; Y.*

509 Plant Systematics (6)
Principles and methods of systematics; angiosperm taxonomy; processes and patterns of vascular plant evolution. Emphasis in lab on angiosperm floral morphology, pollination mechanisms, and family characteristics. 3 lec, 6 lab, Saturday field trips. *Cantino; Sp; A.*

510 Biology of Fungi (5)
Life histories and characteristics unique to fungi. Collection and identification of mushrooms, plant pathogens, and slime molds. Biotrophic, saprotrophic, and necrotrophic relationships of fungi with plants. Field and laboratory. 3 lec, 2 hr lab. *Cavender; F; Y.*

511 Integrative Tropical Plant Biology (4)
Field course of tropical plants in Belize/Guatemala important in sustainable food, fiber, and medicine production and ecosystem stability. 2 lec, 6 lab. *Cavender; W; Y.*

512 Plant Anatomy (5)
Structure, development, and systematic anatomy of vascular plants. 3 lec, 4 lab. *Rothwell; F; Y.*

515 Quantitative Methods in Plant Biology (5)
Prereq: introductory statistics. Lecture: biostatistics and applications in the plant sciences; scientific method, hypothesis testing, and design of experiments; sampling, data analysis, regression and correlation, analysis of variance, parametric and nonparametric statistics. Lab: microcomputer applications in spreadsheet analysis, statistics, and graphics. 3 lec, 4 lab. *McCarthy; W; Y.*

520 Phycology (5)
Classification, nomenclature, relationships, morphology, reproduction, life histories, and economic importance of freshwater and marine algae. 3 lec, 4 lab. *Vis; D.*

521 Agricultural Plant Ecology (5)
Ecological studies of agriculture from basic environmental and organismal interactions to world hunger and population. Field experience provided on farms. 4 lec, 3 lab. *Salick; F.*

522 Tropical Plant Ecology (5)
Prereq: permission. Tropical rainforest studies around the world, including basic plant ecology, conservation and management.. 5 lec. *Salick; Sp.*

524 Plant Physiology (5)
Prereq: organic chemistry. Critical examination of experimental basis of plant physiology. Topics include water relations; uptake and transport of ions and nonionic compounds; plant growth regulators and their roles in growth and development; and carbon, nitrogen, and sulfur metabolism in plants. 3 lec, 6 lab. *Smith; W; Y.*

525 Plant Ecology (5)
Environmental and biotic effects on species growth and distribution; review of recent ecological literature. 3 lec, 4 lab, 1 Saturday field trip. *McCarthy; Ungar; F; Y.*

526 Physiological Plant Ecology (5)
The effects of biotic and abiotic environmental factors on the physiological responses of plants. 3 lec, 4 lab. *Ungar; Sp; Y.*

527 Molecular Genetics (3)
Fine structure of gene, biochemistry of gene action, genetic regulation. 3 lec. *Showalter; Sp; A.*

531 Cell Biology (5)
Biochemical, cytochemical, and ultrastructural aspects of the nucleus and cytoplasmic organelles, mitosis, meiosis, and cellular differentiation. 3 lec, 4 lab. *Braserton, Mitchell; F; Y.*

550 Biotechnology and Genetic Engineering (4)
Introduction to basic molecular biological concepts and techniques in biotechnology and genetic engineering, including discussion of current experimentation and progress in these fields. 4 lec. *Showalter; Sp; A.*

553 Developmental Physiology (4)
Growth and developmental phenomena with emphasis on flowering plants. Topics include cell growth and differentiation in developing meristems, tissue and organ development and culture, dormancy and germination, flower induction, seed formation, hormones, senescence, plant movements, phytochrome. 4 lec. *Mitchell; Sp; A.*

560 Paleobotany (6)
Morphology, evolution, and stratigraphic position of representative fossil plant groups. Field trips. 3 lec, 6 lab. *Rothwell; Sp; D.*

650 Instrumentation and Techniques (5-10)
Instruments and techniques used in solution of contemporary biological research problems. Theoretical and practical aspects included. 5 lec. *F; D.*

653 Experimental Ecology (5)
Prereq: 525 or 526. Theory and methods involved in studying natural plant communities. 3 lec, 4 lab. *Ungar; W; D.*

657 Plant Speciation (5)
Theories and principles of evolution and speciation in plants, emphasizing microevolution, breeding systems, cytology, species concepts, and species complexes. 2 lec, 6 lab. *Ballard; F.*

670 Botanical Pedagogy (1-2)
Preparation for botanical teaching in colleges and universities. *F, W, Sp, Su; Y.*

690 Colloquium (1)
Discussions of current research by visiting scientists, faculty members, and graduate students. *F, W, Sp; Y.*

691 Seminar (2)
Graduate students present seminars on topics of current botanical interest. *F, W, Sp, Su; Y.*

693 Topics in Botany (2-6)
Advanced discussion courses offered when there is sufficient student interest in a significant current topic. Previous topics have included histochemical methods, current problems in biochemistry, plant anatomy, pteridology, and soil microbiology. *D.*

694 Graduate Research (1-15)
Original research in field of major interest under supervision of major advisor. Results and conclusions resulting from research may be presented in M.S. thesis or Ph.D. dissertation as partial fulfillment for respective degree. *F, W, Sp, Su; Y.*

695 Thesis (1-15)
Formal presentation of results of research as partial fulfillment of requirements for M.S. Hours not counted toward degree. *F, W, Sp, Su; Y.*

696 Topics in Organismal Botany (2-6)
Advanced discussion courses offered when there is sufficient student interest in a significant current topic. *D.*

697 Topics in Cell Biology (2-5)
Advanced discussion courses offered when there is sufficient student interest in a current topic. *D.*

698 Topics in Ecology and Evolutionary Botany (2-6)
Advanced discussion courses offered when there is sufficient student interest in a significant current topic. *D.*

Environmental Studies

Graduate work leading to the Master of Science in environmental studies is developed around an interdisciplinary program of coursework and research. The following four areas of concentration constitute the basis of the program:

Life sciences—courses selected from biological sciences and environmental and plant biology

Physical and earth sciences—courses selected from chemical engineering, chemistry, civil engineering, geography, geological sciences, industrial and systems engineering, and mechanical engineering

Environmental policy and planning—courses selected from business, civil engineering, economics, industrial and systems engineering, geography, and political science

Environmental monitoring—courses selected from biological sciences, chemical engineering, chemistry, civil engineering, environmental and plant biology, geography, and geological sciences.

Specific requirements for each concentration area are available upon request from the program director.

In addition to conventional programs of study developed around the four areas of concentration, you have the option of pursuing a combined master's degree program that allows you to combine the breadth of environmental studies with the focus of a departmental discipline. See the Degree Requirements section, in which university regulations for combined master's degree programs are discussed.

Admission

Admission to the graduate program in environmental studies requires an undergraduate degree in agriculture, biology, botany, chemistry, ecology, economics, environmental studies, engineering, forestry, geography, geology, microbiology, zoology, or other cognates. If you lack a suitable background in one of these fields, you may be admitted to the program but required to take additional coursework. A transcript of undergraduate work and three letters of recommendation are required with your application for admission. Deadlines for admission are April 1 for fall quarter, October 1 for winter quarter, and February 1 for spring quarter.

The minimum undergraduate grade-point average (g.p.a.) necessary for unconditional admission is 3.0 (of 4.0). Some students with a g.p.a. between 2.8 and 3.0 are admitted on conditional status but must achieve a g.p.a. of 3.0 in their first 15 hours of graduate coursework.

Requirements

You are required to complete at least 45 credit hours of graduate coursework. Of these, at least 17 credits (three courses) are core courses, and at least 20 additional credits (four to six courses) are in your area of concentration. The balance of the 45 hours comes from other graduate courses, plus thesis research.

The core area course requirement is satisfied by successful enrollment in ES 659 Environmental Studies Seminar, GEOG 547 Resource Management, BUSL 570 Environmental Law, and one of the following courses: BIOS 577 Population Ecology, BIOS 578 Community Ecology, MICR 575 Microbial Ecology, PBIO 521 Tropical Plant Ecology, PBIO 522 Agricultural Plant Ecology, or PBIO 525 Plant Ecology.

You must take comprehensive examinations and defend your thesis during your final quarter of study.

Environmental Studies Courses (ES)

658 Environmental Studies Colloquium (2)
Prereq: ES major. Orientation course primarily for new students in the environmental studies program. Covers general topics in curriculum, research, and career planning. *F, W, Sp.*

659 Seminar in Environmental Studies (3)
Prereq: ES major. Provides forum for discussion and analysis of contemporary environmental problems. Topics vary depending on interests of seminar students.

Foreign Languages and Literatures

Courses are offered in African and Asian Languages (Chinese, Indonesian/Malaysian, Japanese, Swahili, Southeast Asian Literature in Translation); Germanic, Romance, and Slavic Languages (Modern Languages Professional Courses, French, German, Italian, Russian, Spanish); Classical Languages (Greek, Latin). Master of Arts degree programs in French and Spanish are offered.

African and Asian Languages

Chinese Courses (CHIN)

511 Elementary Chinese I (3-5)
Study of spoken and written Mandarin. *Tao; F; Y.*

512 Elementary Chinese II (3-5)
Prereq: 511 or equiv. Study of spoken and written Mandarin. *Tao; W; Y.*

513 Elementary Chinese III (3-5)
Prereq: 512 or equiv. Study of spoken and written Mandarin. *Tao; Sp; Y.*

521 Intermediate Chinese I (3-5)
Prereq: 513 or equiv. Intensive study of spoken and written Mandarin. *Tao; F; Y.*

522 Intermediate Chinese II (3-5)
Prereq: 521 or equiv. Intensive study of spoken and written Mandarin. *Tao; W; Y.*

523 Intermediate Chinese III (3-5)
Prereq: 522 or equiv. Intensive study of spoken and written Mandarin. *Tao; Sp; Y.*

531 Advanced Chinese I (3-5)
Prereq: 523 or equiv. Intensive study of spoken and written Mandarin. *Tao; F; Y.*

532 Advanced Chinese II (3-5)
Prereq: 531 or equiv. Intensive study of spoken and written Mandarin. *Tao; W; Y.*

533 Advanced Chinese III (3-5)
Prereq: 532 or equiv. Intensive study of spoken and written Mandarin. *Tao; Sp; Y.*

599 Special Studies (1-3)
Prereq: perm. Reading and discussion of arranged assignments in books, periodicals, and tapes on specific topics related to Chinese language and culture. *Tao; F, W, Sp, Su; Y.*

Indonesian/Malaysian Courses (INDO)

511 Elementary Indonesian/Malaysian I (3-5)
Study of spoken and written Indonesian/Malaysian. *McGinn; F; Y.*

512 Elementary Indonesian/Malaysian II (3-5)
Prereq: 511 or equiv. Study of spoken and written Indonesian/Malaysian. *McGinn; W; Y.*

513 Elementary Indonesian/Malaysian III (3-5)
Prereq: 512 or equiv. Study of spoken and written Indonesian/Malaysian. *McGinn; Sp; Y.*

521 Intermediate Indonesian/Malaysian I (3-5)
Prereq: 513 or equiv. Study of spoken and written Indonesian/Malaysian. *McGinn; F; Y.*

522 Intermediate Indonesian/Malaysian II (3-5)
Prereq: 521 or equiv. Study of spoken and written Indonesian/Malaysian. *McGinn; W; Y.*

523 Intermediate Indonesian/Malaysian III (3-5)
Prereq: 522 or equiv. Study of spoken and written Indonesian/Malaysian. *McGinn; Sp; Y.*

531 Advanced Indonesian/Malaysian I (3-5)
Prereq: 523 or equiv. Study of spoken and written Indonesian/Malaysian. *McGinn; F; Y.*

532 Advanced Indonesian/Malaysian II (3-5)
Prereq: 531 or equiv. Study of spoken and written Indonesian/Malaysian. *McGinn; W; Y.*

533 Advanced Indonesian/Malaysian III (3-5)
Prereq: 532 or equiv. Study of spoken and written Indonesian/Malaysian. *McGinn; Sp; Y.*

599 Special Studies (1-3)
Prereq: perm. Individual study of selected Southeast Asian topics. *McGinn; F, W, Sp, Su; Y.*

Japanese Courses (JAPN)

511 Elementary Japanese I (3-5)
Study of spoken and written Japanese. *Oshita; F; Y.*

512 Elementary Japanese II (3-5)
Prereq: 511 or equiv. Study of spoken and written Japanese. *Oshita; W; Y.*

513 Elementary Japanese III (3-5)
Prereq: 512 or equiv. Study of spoken and written Japanese. *Oshita; Sp; Y.*

521 Intermediate Japanese I (3-5)
Prereq: 513 or equiv. Study of spoken and written Japanese. *Oshita; F; Y.*

522 Intermediate Japanese II (3-5)
Prereq: 521 or equiv. Study of spoken and written Japanese. *Oshita; W; Y.*

523 Intermediate Japanese III (3-5)
Prereq: 522 or equiv. Study of spoken and written Japanese. *Oshita; Sp; Y.*

531 Advanced Japanese I (3-5)
Prereq: 523 or equiv. Study of spoken and written Japanese. *Oshita; F; Y.*

532 Advanced Japanese II (3-5)
Prereq: 531 or equiv. Study of spoken and written Japanese. *Oshita; W; Y.*

533 Advanced Japanese III (3-5)
Prereq: 532 or equiv. Study of spoken and written Japanese. *Oshita; Sp; Y.*

548 Readings in Japanese Culture I (4)
Prereq: 523 or 531 or perm. Social, political, and cultural aspects of modern Japan through readings, discussions, class reports, and short papers. All work will be done in Japanese. *Oshita; W; Y.*

549 Readings in Japanese Culture II (4)
Prereq: 548 or perm. Social, political, and cultural aspects of modern Japan through readings, discussions, class reports, and short papers. All work will be done in Japanese. *Oshita; Sp; Y.*

599 Special Studies (1-3)
Prereq: perm. Reading and discussion of arranged assignments in books, periodicals, and tapes on specific topics related to Japanese language and culture. *Oshita; F, W, Sp, Su; Y.*

Swahili Courses (SWAH)

511 Elementary Swahili I (3-5)
Study of spoken and written Swahili. *Mugane; F; Y.*

512 Elementary Swahili II (3-5)
Prereq: 511 or equiv. Study of spoken and written Swahili. *Mugane; W; Y.*

513 Elementary Swahili III (3-5)
Prereq: 512 or equiv. Study of spoken and written Swahili. *Mugane; Sp; Y.*

521 Intermediate Swahili I (3-5)
Prereq: 513 or equiv. Study of spoken and written Swahili. *Mugane; F; Y.*

522 Intermediate Swahili II (3-5)
Prereq: 521 or equiv. Study of spoken and written Swahili. *Mugane; W; Y.*

523 Intermediate Swahili III (3-5)
Prereq: 522 or equiv. Study of spoken and written Swahili. *Mugane; Sp; Y.*

531 Advanced Swahili I (3-5)
Prereq: 523 or equiv. Study of spoken and written Swahili. *Mugane; F; Y.*

532 Advanced Swahili II (3-5)
Prereq: 531 or equiv. Study of spoken and written Swahili. *Mugane; W; Y.*

533 Advanced Swahili III (3-5)
Prereq: 532 or equiv. Study of spoken and written Swahili. *Mugane; Sp; Y.*

599 Special Studies (1-3)
Prereq: perm. Reading and discussion of arranged assignments in books, periodicals, and tapes on specific topics related to Swahili language and East African culture. *Mugane; F, W, Sp, Su; Y.*

Southeast Asian Literature in English Courses (ILL)

540 Traditional Literature of Southeast Asia (3)
Survey of traditional literature of Southeast Asia in translation. *McGinn; W; Y.*

545 Modern Literature of Southeast Asia (3)
Survey of modern literature of Southeast Asia in translation. *McGinn; Sp; Y.*

Germanic, Romance, and Slavic Languages

Master of Arts programs are offered in French and Spanish. Both thesis and nonthesis programs are available. Courses for a secondary area can be taken in any language offered by the Department of Modern Languages. Within the Spanish M.A. program, you can choose one of three options: Hispanic literature, pedagogy, or general Hispanic studies. You may apply for admission to a graduate degree program in modern languages in any quarter. Application materials must be received one quarter prior to the quarter for which you are seeking admission; to be considered for financial aid for the following academic year, you must submit application materials by March 1. All students are urged to travel and study abroad, especially during the summer. Qualified teaching associates may have an opportunity to teach in one of the department's four programs abroad.

You also can earn a Master of Education with certification and a major in one modern foreign language, or a Ph.D. in education with 11 graduate courses in one modern foreign language. Consult the College of Education for further information.

To begin a graduate major in a modern foreign language, you should have completed an undergraduate major of 40 quarter hours beyond course 213 or the equivalent in that language. To begin a secondary area of modern languages, you should have completed a minimum of six hours of undergraduate work at the 300 level or the equivalent in the language. You can make up deficiencies in undergraduate preparation during the summer preceding graduate work or during the first quarter of study.

At least 11 graduate courses in the major field are required for the M.A.. You must also demonstrate a reading knowledge of a second modern language or Latin, to be shown either by passing 213 in a modern foreign language, Latin 213, or an equivalent intermediate course with at least a grade of B; passing the examination given for 513 (ETS Foreign Language Tests or a translation test prepared by the Modern Languages Department); or by passing a literature course in the foreign language. In lieu of a foreign language, you may present two graduate courses in linguistics in addition to the 11 graduate courses required for the M.A. Teaching associates are required to register for one hour of 699 each of the first three quarters they are on financial appointment. You must pass a written and an oral comprehensive examination based on coursework and a reading list.

For further information regarding admissions, program options, and degree requirements, write to the graduate chair, Department of Modern Languages, Ohio University, Gordy Hall, Athens OH 45701-2979.

Modern Languages Courses (ML)

510 Supervised Practice and Research in Language Laboratory (4)

For graduate students in teaching English as a foreign language, modern foreign language graduate associates, graduate teaching associates in linguistics, graduate education students, and teachers in secondary schools and colleges.

535 Teaching Foreign Languages in the Elementary School (4)

Readings and discussions of the cognitive development of children and second-language acquisition provide the basis for practical class work. Students design units and prepare learning activities to present in class. Lab experience includes 20 hours observation and participation on the elementary school level.

545 Teaching of Modern Foreign Languages (4)
Problems confronting students on level of instruction (elementary school, secondary school, college) at which they teach or plan to teach.

590 Special Topics (1–15, max 15)

Special graduate-level projects in various areas of modern foreign language study (literature, civilization, language development, and language technology) for graduate students with insufficient foreign language proficiency to participate in MLD graduate-level courses offered in the target languages. This course is not intended as a substitute for the 511-512-513 sequences in French, German, Italian, Russian, and Spanish. (Credit does not count toward M.A. in French or Spanish.)

French Courses (FR)

511 French for Graduate Reading Requirement (3–5)

Preparation for reading knowledge examination required by some departments. (Credit does not count toward degree.)

512 French for Graduate Reading Requirement (3–5)

Continuation of 511. See 511 for description.

513 French for Graduate Reading Requirement (3–5)

Continuation of 511 and 512. See 511 for description.

515 French Literature of the Renaissance (5)
Major 16th-century poets, including DuBellay and Ronsard.

516 French Literature of the Renaissance (5)
Major 16th-century prose writers, including Rabelais and Montaigne.

518 17th-Century French Literature (5)
Works by numerous authors, including at least some of the following: Descartes, Pascal, Mme de La Fayette, La Rouchefoucauld, La Bruyère, La Fontaine, and Boileau.

519 17th-Century French Literature (5)
Major plays of Corneille, Racine, and Molière.

523 18th Century (5)
French literature and thought in Age of Enlightenment.

524 18th Century (5)
Continuation of 523.

525 Romanticism (5)
Romanticism in drama, poetry, and fiction of first half of 19th century.

526 Realism and Naturalism (5)
Major fictional works of 19th century.

527 French Poetry in the Second Half of the 19th Century (5)
Poetry of Baudelaire, Verlaine, Rimbaud, Mallarmé, and others.

529 20th-Century French Literature (5)
French prose fiction before WW II.

531 20th-Century French Literature (5)
French prose fiction since WW II

533 20th-Century French Literature (5)
French drama of the 20th century.

537 Applied Phonetics (5)
Systematic study of segmental and prosodic elements of French pronunciation including extensive oral practice.

539 Modern French Usage (5)
Fine points of grammar. Practice in composition and analysis of texts.

541 Stylistics (5)
Composition. Explication de texte. Translation of English into French. Study of French prosody.

559 French Civilization and Culture (5)
Social, political, and cultural development of France from its origins to French Revolution.

560 French Civilization and Culture (5)
Social, political, and cultural development of France from French Revolution to present.

561 Graduate Study in France (1–15) (as recommended by dept)
Research project must be approved by graduate committee. Research paper must be presented to graduate committee by end of quarter following foreign study.

562 Graduate Study in France (1-15)
(as recommended by dept)
Continuation of 561. See 561 for description.

563 Graduate Study in France (1-15)
(as recommended by dept)
Continuation of 561 and 562. See 561 for description.

602 Seminar (5, max 10)
Advanced study of period, movement, genre, work, or author.

603 Seminar (5, max 10)
See 602 for description.

695 Thesis (1-15)
Prereq: perm.

696 Directed Readings in French Language, Literature, and Culture (1-15, max 30)
Supervised reading in selected areas for students preparing for comprehensive exams. Final grade is recorded when departmental comprehensive examination has been taken.

698 Independent Study in French (1-5, max 15)
Supervised research projects.

699 Problems in Teaching College French (1, max 3)
Designed to provide guidance for teaching associates in first year of instructing college students in beginning language course. Methods of presentation and difficulties in grammar and syntax discussed. Skill of making valid and fair tests developed.

German Courses (GER)

511 German for Graduate Reading Requirement (3-5)
Preparation for reading knowledge examination required by some departments. (Credit does not count toward degree.)

512 German for Graduate Reading Requirement (3-5)
Continuation of 511. See 511 for description.

513 German for Graduate Reading Requirement (3-5)
Continuation of 511 and 512. See 511 for description.

525 Studies in 19th-Century German Literature (5)

526 Studies in 19th-Century German Literature (5)
Continuation of 525.

527 Studies in 19th-Century German Literature (5)
Continuation of 525 and 526.

529 Studies in 20th-Century German Literature (5)

530 Studies in 20th-Century German Literature (5)
Continuation of 529.

531 Studies in 20th-Century German Literature (5)
Continuation of 529 and 530.

533 German Lyric Poetry (5)
Interpretative and critical study of German lyric poetry.

539 Grammatical Structure (5)
Selected problems in analysis and classroom presentation of German morphology and syntax.

541 Stylistics (5)
Advanced writing and stylistic analysis. Practice in variety of nonfiction prose techniques.

698 Independent Study in German (1-4, max 4)
Supervised reading on a specific topic.

Italian Courses (ITAL)

511 Italian for Graduate Reading Requirement (3-5)
Preparation for reading knowledge examination required by some departments. (Credit does not count toward degree.)

512 Italian for Graduate Reading Requirement (3-5)
Continuation of 511. See 511 for description.

513 Italian for Graduate Reading Requirement (3-5)
Continuation of 511 and 512. See 511 for description.

561 Graduate Study in Italy (1-15)
(as recommended by dept)
For study either in Ohio University's summer program in Italy or at accredited Italian university during academic year. Highly qualified students may go to Italy to complete research for graduate paper. Paper must be presented to departmental graduate committee by end of quarter following study in Italy.

562 Graduate Study in Italy (1-15)
(as recommended by dept)
Continuation of 561. See 561 for description.

563 Graduate Study in Italy (1-15)
(as recommended by dept)
Continuation of 561 and 562. See 561 for description.

Russian Courses (RUS)

511 Russian for Graduate Reading Requirement (3-5)
Preparation for reading knowledge examination required by some departments. (Credit does not count toward degree.)

512 Russian for Graduate Reading Requirement (3-5)
Continuation of 511. See 511 for description.

513 Russian for Graduate Reading Requirement (3-5)
Continuation of 511 and 512. See 511 for description.

698 Independent Study in Russian (1-4, max 4)
For students who have established superior records and who have exceptional or native fluency in Russian.

Spanish Courses (SPAN)

511 Spanish for Graduate Reading Requirement (3-5)
Preparation for reading knowledge examination required by some departments. (Credit does not count toward degree.)

512 Spanish for Graduate Reading Requirement (3-5)
Continuation of 511. See 511 for description.

513 Spanish for Graduate Reading Requirement (3-5)
Continuation of 511 and 512. See 511 for description.

521 Old Spanish Language and Literature (5)
Phonology, morphology, and syntax of Old Spanish. Reading from *Cantar de Mio Cid*, *Gonzala de Berceo*, *Juan Ruiz*, and other works. Knowledge of Latin recommended.

522 Old Spanish Language and Literature (5)
Continuation of 521. See 521 for description.

525 19th-Century Spanish Literature 1800-1850 (5)

Romanticism, costumbrismo, and other movements in drama, essay, and poetry.

527 19th-Century Spanish Literature 1850-1900 (5)
Evolution of the novel in 19th-century Spain, including novels selected from the work of the following: Valera, Pereda, Galdos, Alas, Pardo Bazan, Blasco Ibanez.

529 Generation of '98 (5)
Representative works by early 20th-century Spanish writers, including at least some of the following: Azorin, Baroja, Valle-Inclan, A. Machado, Perez de Ayala, Ortega y Gasset, and Juan Ramon Jimenez.

532 20th-Century Spanish Literature (5)
Study of poetry, novel, and drama in Spain since 1925. Works by various authors, including at least some of the following: Lorca, Salinas, Guillen, Aleixandre, Bousoño, Valente, A. Gonzalez, Buero, Cela, Delibes, Martin-Santos, J. Goytisolo, Martin Gaité.

537 Applied Phonetics (5)
Systematic description of the sound system of Spanish.

539 Modern Spanish Usage (5)
The grammatical structure of modern Spanish.

540 Teaching Spanish: Theory and Methodology (5)
This course provides an introduction to the philosophy and theoretical orientation of the teaching of Spanish language and cultures; an introduction to issues in second language acquisition research, with a focus on Spanish; and opportunities to develop professional and instructional materials.

541 Stylistics (5)
Analysis of literary styles and study of techniques used to acquire correct style in writing Spanish.

543 Spanish American Literature (5)
Main movements of Spanish American literature from colonial period through Modernismo.

544 Spanish American Literature (5)
Continuation of 543.

547 Themes from Spanish American Prose (5)
Main movements of Spanish American literature from Modernismo to contemporary period.

548 Contemporary Spanish American Literature (5)

553 Drama of the Golden Age (5)
Works by Lope de Vega, Calderon de la Barca, Tirso de Molina, Juan Ruiz de Alarcón, and related dramatists.

554 Golden Age Poetry (5)
Works by Garcilaso de la Vega, San Juan de la Cruz, Luis de León, Lope de Vega, Luis de Góngora, Francisco de Quevedo, and related poets.

555 Novel of the Golden Age (5)
Picaresque novel, Cervantes' *Novelas Ejemplares*, and other examples of the novel from this period.

557 History of the Spanish Language (5)
Evolution of Spanish language from pre-Romance Iberian languages to present. Consideration of contemporary dialects.

558 Don Quijote de la Mancha (5)
Intensive study of Part One and Part Two of Spain's greatest novel.

559 Spanish Civilization and Culture (5)
Comprehensive survey of Spanish civilization and culture including setting, historical background, regionalism, intellectual currents, and movements in arts which lead into and form modern Spain.

560 Spanish American Civilization and Culture (5)

Reading and interpretation of Spanish American philosophical, political, historical, social, and artistic thought as expressed in essay. Occasional visits of lecturers from other disciplines will provide different perspectives on same subject and thus cross-fertilization of ideas.

561 Graduate Study in Spain or Latin America (1-15) (as recommended by dept)

Research project must be approved by graduate committee. Research paper must be presented to graduate committee by end of qtr following foreign study.

562 Graduate Study in Spain or Latin America (1-15) (as recommended by dept)

Continuation of 561. See 561 for description.

563 Graduate Study in Spain or Latin America (1-15) (as recommended by dept)

Continuation of 561 and 562. See 561 for description.

602 Seminar (5, max 10)

Advanced study of period, genre, work, or author in one of the following areas: (a) literature of the Middle Ages, (b) Renaissance, (c) modern Spanish literature, (d) Latin American literature. May be repeated when topic changes.

603 Seminar (5, max 10)

Continuation of 602. See 602 for description.

695 Thesis (1-15)

Prereq: perm.

696 Directed Readings in Spanish Language, Literature, and Culture (1-15, max 30)

Supervised reading in selected areas for students preparing for comprehensive exams. Final grade is recorded when departmental comprehensive examination has been taken.

698 Independent Study in Spanish (1-5, max 15)

Supervised research projects.

699 Problems in Teaching College Spanish (1, max 3)

Provides guidance for teaching associates in first year of instructing college students in beginning language course. Methods of presentation and difficulties in grammar and syntax discussed. Skill of making valid and fair tests developed.

Greek and Latin Languages**Classics in English****Courses (CLAS)****598 Independent Study in Classical Literature (1-5, max 10)**

Supervised reading on a specific topic.

Greek Courses (GK)**501 Beginning Greek (3-5)**

Grammar, vocabulary, and reading of ancient Greek. Introduction to Ionic, Attic, and Koine (New Testament) dialects.

502 Beginning Greek (3-5)

Prereq: 501 or equiv. Continuation of 501. See 501 for description.

503 Beginning Greek (3-5)

Prereq: 502 or equiv. Continuation of 501-502. See 501 for description.

504 Greek Prose and Poetry (3-5)

Prereq: 1st yr Greek. Review of language principles. Readings adapted to needs and interests.

505 Greek Prose and Poetry (3-5)

Prereq: 504. Continuation of 504. See 504 for description.

506 Greek Prose and Poetry (3-5)

Prereq: 505. Continuation of 504-505. See 504 for description.

511 Greek Epic Poets (3-5)

Prereq: 506 or equiv. Readings in Greek from Homer and Hesiod.

512 Greek Tragedy (3-5)

Prereq: 506 or equiv. Readings in Greek from Aeschylus, Sophocles, and/or Euripides.

513 Readings in Greek Intellectual History (3-5)

Prereq: 506 or equiv. Readings in Greek from Plato, Thucydides, and/or the Sophists.

514 Greek Historians (3-5)

Prereq: 506 or equiv. Readings in Greek from Herodotus and Thucydides.

515 Greek Comedy (3-5)

Prereq: 506 or equiv. Readings in Greek from Aristophanes.

516 The Greek New Testament and the Milieu of Early Christianity (3-5)

Prereq: 506 or equiv. Readings in Greek from the New Testament, the early Greek fathers, and/or non-Christian writers of interest for the study of early Christianity.

551X Demotic Greek (3-5)

Beginning demotic (modern) Greek.

552X Demotic Greek (3-5)

Prereq: 551X. Continuation of demotic (modern) Greek.

553X Demotic Greek (3-5)

Prereq: 552X. Continuation of demotic (modern) Greek.

598 Independent Study in Greek (1-5, max 10)

Supervised reading in Greek on a specific topic.

Latin Courses (LAT)**501 Latin for Graduate Reading Requirement (3-5)**

Preparation for reading knowledge examination required by some departments. (Credit does not count toward degree.)

502 Latin for Graduate Reading Requirement (3-5)

Continuation of 501. See 501 for description.

503 Latin for Graduate Reading Requirement (3-5)

Continuation of 501 and 502. See 501 for description.

511 Studies in Latin Literature of the Republic (3-5)

Extensive reading or study of special topics in period.

512 Studies in Latin Literature of the Republic (3-5)

Continuation of 511. See 511 for description.

513 Studies in Latin Literature of the Republic (3-5)

Continuation of 511 and 512. See 511 for description.

515 Studies in Latin Literature of the Early Empire (3-5)

Extensive reading or study of special topics in period.

516 Studies in Latin Literature of the Early Empire (3-5)

Continuation of 515. See 515 for description.

517 Studies in Latin Literature of the Early Empire (3-5)

Continuation of 515 and 516. See 515 for description.

519 Graduate Reading in Latin Literature (3-5)
Reading and essays to complement undergraduate work in Latin.

520 Graduate Reading in Latin Literature (3-5)
Continuation of 519. See 519 for description.

521 Graduate Reading in Latin Literature (3-5)
Continuation of 519 and 520. See 519 for description.

533 Special Work in Latin Syntax (3-5)
Development of style in writing Latin prose.

540 Special Problems in Latin (2-6, max 12)
Investigation of selected phases of classical study.

French

See Foreign Languages and Literatures.

Geography

The Department of Geography welcomes qualified applicants who possess an undergraduate degree in geography or an allied physical or social science. The M.A. program maintains a strong overlapping focus in human/environmental interaction that encompasses six subfields of geography: Environmental Planning and Management, Regional Landscape Analysis, Human/Historical, Physical/Environmental, Global Dynamics, and Geo-Infomatics.

Applicants for graduate study are expected to have completed a minimum of 16 quarter hours of undergraduate geography. In addition, prospective students are required to submit transcripts of all undergraduate work, scores on the GRE examination (verbal, math, analytical), a statement of purpose, and three letters of recommendation. The minimum undergraduate grade point average for admission to the graduate program is 3.0 on a 4.0 scale. International students whose native language is not English must also submit the Test of English as a Foreign Language (TOEFL) scores. A number of graduate associateships are available for qualified applicants and are awarded on a competitive basis.

The Department of Geography offers both thesis and non-thesis M.A. degree programs. For both thesis and non-thesis tracks, students are required to complete course work in quantitative

methods (GEOG 571G), research methods (GEOG 580), and three graduate seminars. For students following the thesis track, a minimum of nine additional elective courses are required, seven of which must be in geography. Hours in GEOG 504, 505, 585, and 690 are excluded from this nine course requirement. Fifteen hours of thesis also are required. Students following the thesis track must assemble a thesis committee, successfully defend a thesis proposal, and complete and defend the thesis before this committee.

For the nonthesis option, students must complete a minimum of 60 quarter hours of graduate study, 50 of which must be in geography. Hours in GEOG 504, 505, 585, and 690 do not count toward this total. Students following the non-thesis option must develop a program in two systematic and one technical specializations. The specific course of study must be approved by the student's non-thesis advisory committee. The degree is completed by passing a three-part comprehensive written exam on the chosen areas of systematic and technical specialization.

Although students may be admitted during any academic quarter, the department strongly encourages students to begin their graduate program in the fall quarter. Application materials for fall quarter admission into the graduate program must be received by March 1.

The Department of Geography works closely with several interdisciplinary programs including Center of International Studies and the Environmental Studies Program.

Geography Courses (GEOG)

502 Meteorology (5)

General survey of physical principles of weather.

503 Climatology (5)

Exchanges of energy and moisture and their significance in the use of the earth's surface.

504 Observations in Meteorology (2)

Prereq: 502. Lab experience in acquisition and measurement of meteorological parameters.

505 Practicum in Meteorological Forecasting (2-10)

Prereq: 502, 504. Lab experience in preparation and dissemination of meteorological forecasts.

506 Introduction to Synoptic Meteorology (5)

Introduction to synoptic meteorological analysis with interpretation of surface, upper air, and prognosis charts.

507 Synoptic Meteorology (5)

The construction and analysis of meteorological models used in predicting meteorological phenomena.

511 Advanced Physical Geography (5)

Application of physical geographic principles to specific research problems or topics.

515 Landforms and Landscape (5)

The study of landforms and landform assemblages as fundamental elements of the physical environment.

516 Biogeography (5)

Examination of historical, environmental, and biotic influences that shape spatial patterns of plant and animal distributions and community structure in the contemporary landscape.

517 Landscape Ecology (5)

Explores the landscape mosaic, focusing on the heterogeneous pattern of ecosystems, interactions of elements, and change.

520 American Ethnic Geography (5)

Systematic and thematic survey of spatial and cultural patterns associated with ethnicity and ethnic groups in the United States.

521 Population Geography (5)

Systematic survey of global population concerns including distribution, composition, fertility, mortality, density, international migration policies, and impact of these factors on world population growth and resources.

522 Settlement Geography (5)

Patterns and forms of rural settlement in terms of environmental, functional, and traditional effects.

524 Industrial Location (5)

Factors in industrial location, theory, and applications in developmental planning.

525 Political Geography (5)

Systematic examination of basic approaches, topics, and spatial concepts in political geography with case studies. Emphasis at nation-state level.

526 Urban Geography (5)

Introduction to urban process including models of land use change, social area analysis, and factorial ecology, design principles of the new urbanism, sprawl and other urban impacts on metropolitan areas. Emphasis on North America.

528 Historical Geography of the United States (5)

Systematic and regional survey of past human geographies of the United States. Focus on the development of regional identity over time and space.

530 Western European Geography (5)

Topical and regional survey of western Europe with emphasis on region's position as integrated economic area. Specific European planning regions will form basis for discussion.

531 African Thematic Geography (5)

Systematic examination of four selected themes relevant to modern geography of Africa. Emphasis on development.

532 Africa: Regional Approaches (5)

Regional survey of the major areas of tropical Africa: East, West, Equatorial, Central, and South.

535 Geography of Latin America (5)

Regional survey of Latin America focusing on biophysical systems, rural development, population/migration, cultural geography.

538 Southeast Asia (5)

Survey of population, food production, natural resource exploitation, energy, physical environment, and the regional concept in southeast Asia.

539 Geographic Patterns in Developing Countries (5)

Comparative examination of selected spatial patterns of countries from the developing world.

540 Environmental Impact Analysis (5)

Introduction to analytic techniques, legal responsibilities, and administrative procedures in evaluating environmental impacts of land use change. Practice in production of environmental impact statements and in documenting scientific research.

544 Agricultural Ecosystems (5)

Systematic analysis of agricultural change and sustainability of agricultural systems in the industrial and developing world. A spatial perspective on the globalization of agriculture, agro-biotechnology, and the future of agriculture.

547 Resource Management (5)

Themes in American environmental history, contemporary environmentalism, methods of resource assessment and management, and selected case studies in managing renewable resources.

550 Land Use Planning (5)

Survey of land use issues including mapping, ownership, legal issues, zoning, conservation, subdivision regulation, takings, and habitat conservation planning with practical applications.

553 Environmental Planning (5)

Introduction to the development, implementation, and operation of activities to guide landscape development. Emphasis on interaction between natural and social systems, methods of environmental analysis, and the evolution of environmental planning strategies.

560 Cartography (5)

Introduction to basic design principles of maps, emphasizing map production. Map construction ranges from simple map compilation to multicolor composition and scale reduction.

561 Statistical Cartography (5)

Prereq: 560. Cartographic techniques of representing quantitative data on maps. Both traditional and computer techniques applied.

565 Air Photo Interpretation (5)

Principles and techniques used in air photo interpretation for geographers, geologists, community planners, engineers, and environmentalists.

566 Remote Sensing (5)

Application of computer-based statistical patterns recognition techniques to the digital analysis and classification of remotely-sensed imagery.

568 Automated Cartography (5)

Introduction to automated techniques for compiling and producing maps. Issues range from reapplication of manual techniques in a computer environment to fully automated production and GIS.

571 Quantitative Methods (5)

Systematic survey of the methods of multivariate analysis used by geographers.

575 Analysis of Geographic Systems (5)

Introduction to methods of systems analysis and modeling directed to study of regional human and environmental processes and their interaction at regional and global scales.

576 Field Methods (5-9)

Introduction to geographic field methods and techniques in rural and/or urban areas, involving field mapping and recording, spatial sampling, interviewing, coding and visual recording, field analysis, and reporting and summarizing.

578 Geographic Information Systems (5)

Introduction to the development and use of computer database management systems for the capture, storage, and analytic manipulation of geographic data following the raster model.

579 Advanced Geographic Information Systems (5)

Prereq: 578. Principles and techniques used in the design of vector-based GIS with emphasis on relational data models, vector/raster integration, data quality, and advanced cartographic modeling.

585 Internship (max 15)

Provides qualifying students credit for work study experience in cartography, remote sensing, land-use planning, resource management, and other fields in applied geography. Supervised by geography faculty and evaluated by on-the-job supervisor. Lengthy report summarizes experience.

666 Seminar in Cartography (5)

675 Library Research and Writing (5)
Prereq: 571. Students build geographical data files, analyze with descriptive and inferential statistics, and use models of spatial analysis directed toward the analysis of spatial patterns.

678 Analysis of Geographical Data (5)

Prereq: 571. Students build geographical data files, analyze with descriptive and inferential statistics, and use models of spatial analysis directed toward the analysis of spatial patterns.

679 Seminar: Human Geography (5)**680 Seminar: Third World Development and Environment (5)****681 Seminar in Physical Geography (5)****682 Seminar in Economic Geography (5)****682B Seminar in Political Geography (5)****683 Metropolitan Areas: Seminar in Urban Geography (5)****684A Seminar in Regional Geography: Latin America (5)****684B Seminar in Regional Geography: Southeast Asia (5)****684C Seminar in Regional Geography: Africa (5)****685 Seminar in Population Geography (5)****686 Seminar in Historical Geography (5)****687 Seminar in Geographical Technique (5)****688 Seminar in Resource Management (5)****689 Seminar in Land Use Planning (5)****690 Geographic Studies (1-5, max 5)****694 Research Project (1-15)****695 Thesis (1-15)**

geology or in an allied science field such as chemistry, physics, mathematics, biological science, or engineering. The department offers five M.S. options:

Geology—specializations in sedimentology/stratigraphy, paleontology, structure/tectonics, geomorphology/glacial geology

Hydrogeology**Environmental geology****Environmental geochemistry**

Geophysics—emphasis on measurement of seismic properties of rocks and seismic field methods

Applicants must take the geology subject test of the Graduate Record Examination (GRE) and have the results reported to the Department of Geological Sciences.

All options require a minimum of eight graduate courses approved by the department and completion of a thesis. Specific course requirements depend on the option selected. For additional details on requirements, see the publication *Graduate Program Information Package—Geological Sciences*, available from the department.

Prospective graduate students for all options should have demonstrated background in chemistry, physics, and calculus. Minimal background for admission to the geology option without deficiency includes courses in mineralogy, petrography/petrology, structural geology, sedimentology/stratigraphy, geomorphology, paleontology, and field geology. Since the graduate options in hydrogeology, environmental geology, environmental geochemistry, and geophysics are designed for candidates with either undergraduate geology degrees or undergraduate degrees in allied sciences, the required background is flexible, and you may take certain undergraduate geology courses for graduate credit on the assumption of a more detailed background in a related science.

Applications for financial aid must be received by March 1 for fall quarter admission. You may be admitted in any academic quarter, but financial aid is often unavailable for students who do not enter in fall quarter.

Geological Sciences Courses (GEOL)**501 Advanced Physical Geology (5)**

Designed for students with limited background in geology entering the graduate options in environmental geology, geophysics, and hydrogeology. Emphasizes those aspects of minerals, rocks, rock deformation, and surficial processes necessary to pursue a program in applied geology. *Green; F; D.*

502 International Geology Field School (15)

Prereq: major, 315, 320, 330, 350, 360, one year of college Spanish. Field examination of the geological evolution of North America. Introduction to field methods and field geology. Geologic mapping in deformed sedimentary, igneous, and metamorphic terranes. Ten-week course conducted in Mexico, Arizona, the central Appalachians, and Nova Scotia. 5 lec, 20 lab. *Nance; Su.*

505 Modeling and Computational Methods in Geology (6)

Prereq: 330 and 360. Applied computer-based mathematical methods in geology. Basic geostatistical concepts. Data analysis, conceptual models, and hypothesis testing in geological problems. Mathematical simulation of geological processes and analysis of solutions. Programming exercises in Fortran and use of software to model processes in hydrogeology, geochemistry, and other fields of geology. 4 lec, 2 lab. *Lopez.*

507 Geological Applications of Remote Sensing (5)

Prereq: 330, 360. Principles of interpretation and analysis of conventional aerial photograph and satellite imagery in resolution of geologic problems. 2 lec, 4 lab. *Smith; Sp; Y.*

510 Rocks and Minerals (6)

Principles of crystallography and crystal chemistry, descriptive mineralogy, origin and classification of igneous sedimentary and metamorphic rocks. 4 lec, 4 lab. *Heien; D.*

512 Earth Materials and Resources (5)

Prereq: 101, CHEM 122 or 152. An introduction to minerals and rocks, emphasizing common varieties and those important as mineral resources. 3 lec, 4 lab. *Hein.*

513 Optical Mineralogy (5)

Prereq: 320 or concurrent. Optical characteristics of minerals and identification of minerals with the petrographic microscope. 2 lec, 4 lab. *Heien; F; Y.*

522 Igneous and Metamorphic Petrology/Petrography (5)

Prereq: 413. Petrogenesis of igneous and metamorphic rocks and their identification in thin section. 2 lec, 4 lab. *Heien; Sp; Y.*

524 Sedimentary Petrology/Petrography (4)

Prereq: 350, 413. Petrogenesis of sedimentary rocks and their description and classification in hand specimen and thin section. *Kidder; W; Y.*

525 Diagenesis (5)

Prereq: 524. Critical view of diagenetic principles using numerous examples. Many topics are selected from recent journal articles. Readings, presentations, and discussions of current literature are included, as well as a term paper. 4 lec. *Kidder; Sp; A.*

527 Water Geochemistry (5)

Geochemical origin of major ions in natural waters and the role of fluid-mineral interactions in the evolution of sediments, the ocean, and the atmosphere. Major geochemical cycles. Introduction to thermodynamical equilibrium, kinetics, complexation, oxidation-reduction, and cation exchange. Case studies of important geochemical and environmental issues. 3 lec, 2 lab. *Lopez.*

Geological Sciences

The Department of Geological Sciences welcomes qualified applicants who possess an undergraduate degree in

528 Physical Geochemistry (5)

Prereq: 527. Basic principles of physical chemistry of hydrogeologic, environmental, and geologic applications. Topics include adsorption and desorption reactions; chemistry of sulphur and iron; introduction to stable isotopes; transport mechanisms of chemical species; and origins, formation, and migration of oil. 3 lec, 2 lab. *Lopez.*

530 Principles of Geomorphology (6)

Basic concepts of origin and development of land forms. Laboratory study of topographic maps and aerial photographs. Can be taken for graduate credit by students in hydrogeology and geophysics options only. 4 lec, 2 lab. *Smith; F; W; Y.*

532 Origin and Classification of Soils (5)

Prereq: 330. Concept of soil and factors of soil formation, introduction to soil morphology and systems of soil classification, discussion of major soil groups of world and soils of Ohio. 3 lec, 2 lab, field work. *Smith; F; A.*

537 Depositional Environments (5)

Prereq: 550. Advanced coverage of depositional processes and environments. Latter part of course focuses on global sedimentation and events. Readings, presentations, and discussions of current literature are included, as well as a term paper. 4 lec. *Kidder; Sp; A.*

538 Glacial Geology (5)

Prereq: 330. Formation and behavior of glaciers, past and present; glacial processes and causes and implications of ice ages. 3 lec, 2 lab, field trips. *Smith; F; A.*

543 Advanced Invertebrate Paleontology (6)

Prereq: 340. Evolutionary trends, geologic history, selected index genera and faunas, and modern methods in study of invertebrate fossils. 3 lec, 4 lab. *Mapes; W; Y.*

546 Earth Systems Evolution (5)

Prereq: 320, PHYS 201. Synthesis of the coupled histories of the earth's interior, surface, and life. 3 lec, 2 lab. *Worsley; W; Y.*

550 Stratigraphy—Sedimentology (5)

Prereq: 320. Introduction to principles and processes relating to origin of stratified rocks and conventions of their classification and description. Field methods and field trips with emphasis on depositional environments. 4 lec, 2 lab. *Kidder; Sp; Y.*

555 Limnogeology (5)

Prereq: 350 or 550 or equivalent. Geological aspects of ancient lake environments. Topics in lake models, geochemistry, sedimentology, and stratigraphy are selected from current literature for presentations and discussions. 4 lec. *Gierlowski-Kordesch.*

557 Petroleum Geology (5)

Petroleum geology is designed for geology students at the senior undergraduate and graduate level to provide an understanding of the basic concepts and processes that govern (1) the generation, migration, and trapping of hydrocarbon resources, and (2) the fundamentals of exploration for, and exploitation of, these resources. 3 lec, 2 lab. *Nadon.*

560 Structural Geology (6)

Prereq: 320. Principles of rock deformation and interpretation of folding and faulting and related topics. Stress and strain; their application and derivation in natural structures. Field-oriented structural problems, structural maps, and use of stereographic projections. 3 lec, 2 lab, field work. *Nance; F; Y.*

564 Regional Tectonics (5)

Prereq: 360. Global tectonics and structure of continental cratons and margins, mid-ocean ridges, island arcs, and major orogenic belts. 4 lec. *Nance; W; A.*

565 Basin Tectonics and Hydrocarbon Exploration (6)

An examination of the tectonics, structural style, and hydrocarbon potential of sedimentary basins, their role in the exploration of petroleum provinces, and their appearance and interpretation on conventional exploration data. *Nance; F; Y.*

566 Geodynamics: The Earth's Interior (5)

Prereq: 320. Structure of earth's interior and plate tectonics. Solid earth geophysics; gravity, magnetism, heat flow, velocity structure and seismicity. 4 lec. *Green; Sp; Y.*

567 Tectonophysics (5)

Quantitative modeling of solid earth physical processes. Physical properties of minerals, rocks, and unconsolidated materials. Modeling of tectonic plate flexure, geothermal heat flow, seismic wave propagation, and fault mechanics. 4 lec.

569A Earth Science for Teachers (5)

Seminars, laboratory work, and field trips dealing with topics in the earth sciences. Controversial subjects such as global warming, destruction of natural habitats, and evolution discussed. Goals include understanding process of science and limitations of scientific inquiry. *Mapes; Su; D.*

569B Classroom Applications in Earth Science (1)

Prereq: 569A concurrent. Examines selected fundamental problems in earth science and the development of hypotheses and theories. Reports detailing adaptation of topics in earth science to classroom lessons are written and presented. *Mapes; Su; D.*

570 Mineral Deposits (5)

Prereq: 320. Geologic and geochemical processes by which mineral deposits form and their relationship to plate tectonics. 4 lec. *Heien; Sp; A.*

576 Subsurface Methods (5)

Prereq: PHYS 202 or 253. Drilling practices, drill stem test, electric, sonic, and radioactivity logging applied to subsurface exploration. 3 lec, 2 lab. *W; Y.*

580 Principles of Hydrogeology (5)

Principles governing occurrence, movement, and recovery of water in soil and aquifers. Hydrogeologic cycle, water budget, hydrology of agriculture, watershed studies, water chemistry, and water pollution, water chemistry. 3 lec, 2 lab. *Stoertz; F; Y.*

581 Groundwater Flow Modeling (5)

Prereq: 580. Steady and unsteady flow to well, analysis of pumping data, water well design, well development, interference of wells, and design of well fields. 3 lec, 2 lab. *Stoertz; W; Y.*

582 Transport Processes in Groundwater (5)

Prereq: 581. Basic principles and fundamental equations; D.E. of groundwater motion, solution of boundary value problems for different types of aquifers. Analytical and numerical methods in subsurface hydrology with emphasis on finite difference method, digital model. 4 lec. *Lopez; Sp; Y.*

583 Field Hydrology (6)

Prereq: water resources background. Field training in techniques of hydrology and water resources evaluation. *Su; Y.*

585 Introduction to Applied Geophysics (5)

Prereq: PHYS 202 or 253. Introductory course in environmental and geotechnical geophysics. Survey of applied geophysical methods including seismic, gravity, magnetic, electrical, and electromagnetic techniques. 3 lec, 2 lab. *Green; F; Y.*

586 Applied Seismology (4)

Prereq: 585. Field methods and analysis techniques for seismic characterization of shallow subsurface, multichannel digital data acquisition, generalized reciprocal refraction, and common offset reflection techniques as practiced in environmental and geotechnical industries. *Green; Sp; Y.*

589 Advanced Topics in Hydrogeology (1-4)

Prereq: 580. In-depth study of an advanced or current topic in hydrogeology, exploring (but not limited to) such areas as karst hydrogeology, fracture-flow hydrogeology, mine hydrology, unsaturated flow, and inverse modeling. Consult instructor for topics. *Stoertz; Lopez.*

621 Advanced Metamorphic Petrography (4)

Prereq: 413. Petrogenesis of metamorphic rocks and their description and classification in hand specimen and thin section. 2 lec, 2 lab. *Nance; Sp; A.*

653 Sequence Stratigraphy (5)

Principles governing the use of relative changes in sea level to interpret sedimentary sequences with an emphasis on field and core examples. 4 lec. *Nadon.*

661 Advanced Structural Geology (5)

Prereq: 360. Deformation, stress, and strain: their application and derivation in natural structures. Regional structural associations and geometric analysis. 4 lec, 2 lab. *Nance; W; A.*

690 Advanced Seminar in Geology (1-2)

Intensive study of selected geologic topics by special groups. (Several seminars may be held concurrently.) *F; W, Sp, Su; Y.*

691 Geologic Studies (1-6, max 12)

Individual or small-group independent study arranged with faculty members. *F; W, Sp, Su; Y.*

693 Research in Geology (1-3, max 6)

F; W, Sp, Su; Y.

695 Thesis (1-15)

F; W, Sp, Su; Y.

German

See Foreign Languages and Literatures.

History

The graduate program in history is intended to prepare students for teaching and research at the college and university level, for secondary school teaching, and for a variety of other pursuits. Applicants are expected to have completed 24 semester hours or 36 quarter hours of undergraduate history courses. An exception to this requirement may be considered if you have an outstanding undergraduate or M.A. record. Deadline for application to either the M.A. or the Ph.D. program for fall quarter admission is July 1; for financial assistance, the deadline is February 1.

Master's Program

The M.A. program offers work in the following fields: United States, modern Europe, ancient and medieval, Balkans and Middle East, Latin America, Africa, and southeast and east Asia. The general requirements in the thesis program consist of eight 500-level courses, a two-quarter seminar, and an acceptable thesis. The general requirements for the nonthesis program are ten 500-level courses, plus a two-quarter seminar in which an acceptable research paper is written. No foreign language is required for admission, but students in the thesis program must demonstrate a reading proficiency in one foreign language prior to graduation. The nonthesis M.A. program is usually regarded as terminal.

Doctoral Program

You must offer a minimum of six quarters of residence credit as a full-time equivalent student beyond the master's degree. You are required to show reading proficiency in two foreign languages; in particular cases, demonstrated proficiency in quantitative methods may be substituted for one language. You must complete a nonhistory minor of three graduate courses in one cognate field or four courses in two cognate fields. Within the area of concentration, you normally will select two fields, in one of which the dissertation will be written. You also will do coursework in two fields outside the area of concentration. Areas and fields are as follows:

Area one. American history: colonial, 19th century, 20th century, U.S. foreign relations, U.S. social-intellectual, U.S. economic (in cooperation with the Department of Economics).

Area two. European: western Europe, European diplomatic, Tudor-Stuart England, England since 1714, Balkans, Russia, ancient, medieval Europe, Renaissance, and Reformation.

Area three. Third World: Africa, east Asia, southeast Asia, Middle East and Mediterranean, Latin America.

For additional details as to requirements, consult the publication *Ohio University: Graduate Study in History*, available from the department.

History Courses (HIST)

500A Colonial America to 1689 (5)

English background, establishment of settlements, first economies, evolution of political and religious structures. Relations with England, internal conflicts. Glorious Revolution. *Steiner; Y.*

500B Colonial America 1689–1763 (5)

Governmental changes, credit and currency, Great Awakening, cultural developments, old colonial system, Anglo-French rivalry, nature of colonial society, problems of maturing political units. *Steiner; Y.*

500C Revolutionary Era 1763–1789 (5)

Causes of American Revolution and struggle for independence. Confederation, movement for new government, framing of Constitution. *Steiner; Y.*

502 American Indians (5)

Treats Indian society before white contact; Spanish, French, and English impact; Indian removal; Indian wars; problems of cultural contact; preservation versus assimilation; Indian society today. *Jellison; Y.*

503 United States in World War II (5)

Military and diplomatic role of United States in WWII; political, economic, and social impact of war on that nation. *Fletcher; Y.*

505 The United States and the Vietnam War (5)

Examines American experience in Vietnam, in terms of both military and diplomatic history of war itself and its impact on American society. *Fletcher; Y.*

506 American Environmental History (5)

A survey of the evolution—from 1565 to the present—of American attitudes toward, and interactions with, the natural world, including such topics as romanticism, the “code of the sportsman,” conservation, the “land ethic,” and “deep ecology.” *Reiger; D.*

508A Pre-Civil War America, 1815–1850 (5)

New definitions of democracy, westward expansion, early industrialization and class formation, moral reform movements, slavery and sectionalism, Mexican War, conflict of Jacksonian Democrats and Whigs. *Field; Y.*

508B The Civil War and Reconstruction (5)

Forces making for increased sectionalism in 1850s, rise of new parties, military engagements, society and institutions in North and Confederacy during wartime, attempts to restructure Southern society after war and why they failed. *Field; Y.*

508C Foundations of Modern America: The Gilded Age, 1877–1901 (5)

Labor unrest, nativism and antisemitism, imperialism, government corruption, social Darwinism, urban growth, Victorian morality, and Indian wars examined as outgrowths of efforts of American people to adapt to modernization and industrialization in late 19th century. *Field; Y.*

510A Twentieth-Century America, 1900–1928 (5)

Emphasis on political and cultural history. Major topics include early 20th-century progressivism as an intellectual movement and its manifestations in state and local politics; presidencies of Theodore Roosevelt and Woodrow Wilson; impact of WWI; ambivalent character of the 1920s in American culture and politics; origins and effects of the affluent society. *Hamby; Pach; Y.*

510B Twentieth-Century America, 1928–1945 (5)

Emphasis on politics, culture, and foreign policy. Major topics include origins and nature of Great Depression; Franklin D. Roosevelt and the emergence of the modern presidency; political and intellectual character of the New Deal; origins and impact of American involvement in WWII; wartime military history, diplomacy, and politics. *Hamby; Pach; Y.*

510C Twentieth-Century America, 1945–Present (5)

Emphasis on politics, culture, and foreign policy. Major topics include origins and nature of the Cold War; impact of foreign involvements on American politics; political leadership in the media age; radicalism and social change in the '60s and '70s; the rise of cultural politics and its effect on economic-based political coalitions; resurgence of conservatism in the '70s and '80s. *Hamby; Pach; Y.*

514D American Social Thought to 1815 (5)

Major aspects of intellectual history of American colonies and United States to 1815, organized around two major themes: Puritanism and secularization of American thought in 18th century. *Alexander; Y.*

514E American Social Thought, 1815–1915 (5)

Major aspects of intellectual history of U.S., 1815–1915, stressing rise of romantic nationalism; triumph of democratic attitude; slavery controversy; impact of Civil War and Darwinian evolution. *Alexander; Y.*

514F American Social Thought Since 1915 (5)

Major aspects of intellectual history of U.S. since 1915, with principal attention to continuing impact of evolutionary naturalism, especially in development of pragmatism; trends in left and right political ideologies; rise of pessimistic theology and its ramifications; modernism in arts; new radicalism and counterculture. *Alexander; Y.*

515A African American History to 1865 (5)

Beginning with introduction of slavery in 1619, course deals with black person's role in America through Civil War. Concerns slavery, abolition, and many attempts by black people to improve their position. *Fletcher; Y.*

515B African American History Since 1865 (5)

Emancipation and its continuing effects on blacks in America. Life in South, migration to North, and conservative and radical attempts by black community to deal with these problems. *Fletcher; Y.*

516A History of United States Foreign Relations to 1914 (5)

U.S. foreign relations from war for independence to WWI, stressing development of traditional policies—isolationism, neutrality, Monroe Doctrine—and emergence of U.S. as world power. *Pach; Y.*

516B History of United States Foreign Relations, 1914–1945 (5)

U.S. foreign relations beginning with World War I and ending with World War II, emphasizing the interwar years by comparing and contrasting such international issues facing the United States in the 1920s and 1930s with those which have resurfaced after the end of the Cold War as isolationism, nationalism, the nation-state, self-determination, ethnic and religious conflict, global economics, and peace movements. *Hoff Pach; Y.*

516C History of United States Foreign Relations, 1945–Present (5)

U.S. foreign relations emphasizing the various interpretations of and methodologies for study of the origins of the Cold War, the emergence of detente, the reasons behind the end of the Cold War, and the current international issues facing the United States since 1991, especially globalization, terrorism, fundamentalism, and ethnic conflict. *Hoff Pach; Y.*

517A Ohio History to 1851 (5)

Moundbuilders and Indians, Anglo-French rivalry, Revolution, territorial development, patterns of settlement, Constitution of 1802, evolution of political parties, transportation and economy, banking and currency, Constitution of 1851. *Steiner; Y.*

517B Ohio History Since 1851 (5)

Slavery and restructuring of political parties; Civil War, rise of industry, politics in progressive era, Great Depression and aftermath, post-WWII Ohio. *Y.*

519 Sports in American History (5)

Survey of evolution of organized sports in U.S., focusing on major spectator sports. Emphasis on personalities and particular events rather than sociological and psychological theorizing. *Alexander; Y.*

520A Women in American History Before 1877 (5)

American women's history from the colonial era through Reconstruction. Topics include the traditional life of Native American women, witchcraft in colonial New England, women in the American Revolution, African American women in slavery, early American childbirth customs, the early women's rights crusade, women on the trans-Mississippi frontier, and women in the Civil War. *Jellison; Y.*

520B Women in American History Since 1877 (5)

American women's history since Reconstruction. Topics include the experiences of immigrant women in the U.S., prostitution in the Gilded Age, the Progressive Era birth-control movement, achievement of the right to vote, women in the two world wars, women in the civil rights movement, the new feminist movement, the backlash against feminism, and Roe v. Wade and the abortion debate. *Jellison; Y.*

521A History of the Military in America 1600–1898 (5)

Military institutions in American history: role of technology in warfare, innovations and reforms in military; war and its conduct; military and civilian society in war and peace. *Fletcher; Y.*

521B History of the Military in America 1898–Present (5)

Continuation of 521A. *Fletcher; Y.*

522 1960s in the United States: Decade of Controversy (5)

Enables students to go beyond the popular stereotypes of the 1960s to understand the decade as a period of social, cultural, and political confrontation that laid the groundwork for life in the present-day United States. Students focus primarily on the following social protest movements of the era: the civil rights movement, the student movement, the antiwar movement, the counterculture, and the women's movement. *Jellison; Y.*

523A Latin American History: The Colonial Era (5)

Examines historical origins of Latin American society. Themes include internal nature of Iberian and pre-Columbian Indian societies, ca. 1492; conquest and subordination of Amer-Indian civilizations by Spain and Portugal; distribution of power, land, and labor in post-conquest Latin America; order and instability in colonial society; and region's position in international economy. *Grow; Y.*

523B Latin American History: The 19th Century (5)

Examines 19th-century origins of modern Latin American underdevelopment, focusing on causes and consequences of revolutions of independence; dynamics of dictatorship and democracy in post-independence Latin American political culture; and decision-making process by which Latin America's 19th-century leaders integrated their national economies into international economic systems as specialized exporters of raw materials. *Grow; Y.*

523C Latin American History: The 20th Century (5)

Survey of modern Latin American history focusing on causes and consequences of structural instability in Latin America since 1900. Emphasis on collapse of region's traditional liberal/export model of national development in the 1930s; competing political/ideological responses to structural crisis in region (social revolution, authoritarianism, democratic change); and ongoing search for viable formulas of economic development. *Grow; Y.*

524 Colloquium in the History of U.S.–Latin American Relations (5)

Readings and research papers on major issues in 20th-century U.S.–Latin American relations. *Grow; D.*

525 History of U.S.–Latin American Relations (5)

Survey of inter-American relations in the 19th and 20th centuries, focusing on evolving, and often conflicting, definitions of national interest that have shaped U.S. and Latin American policy orientations toward one another. *Grow; Y.*

526 Dictatorship in Latin American History (5)

Focuses on predominant type of political/governmental system in Latin America: authoritarian dictatorship. After placing Latin American authoritarianism in long-range historical context of autocratic, centralized rule within region, examines major examples of 20th-century ideological authoritarianism in Latin America ranging from populist authoritarianism of Juan Peron in Argentina to bureaucratic authoritarian regimes recently in power in Southern Cone and Brazil. Attention to competing schools of interpretation which attempt to explain recurring phenomenon of nondemocratic forms of government in Latin America. *Grow; Y.*

528 The World of Aristophanes (5)

Political, social, and cultural institutions of Greece in fifth century B.C. with special emphasis on city of Athens. *Allen; D.*

529A Ancient Egypt and Mesopotamia (5)

Prehistoric eras; origin of Mediterranean civilizations; problems of ancient chronology; civilizations of Sumerians, Babylonians, Egyptians, Assyrians, Biblical Hebrews, and Persians. Stresses archaeological and literary sources, comparative social and religious concepts, acculturation, contributions to Western civilization. *Allen; Y.*

529B Ancient Greece (5)

Aegean prehistory, Minoan civilization, Mycenaean Greeks, Dorian invasions, Greek Renaissance, growth of the polis, Athenian society and culture, Persian and Peloponnesian wars, political history of Greece to Alexander. Stresses archaeological sources, mythology, and drama. Hellenic contributions to Western civilization. *Allen; Y.*

529C Ancient Rome (5)

Early peoples of Italy, Etruscans, constitutional development of republic, growth of empire, civil wars, history of principate to Constantine. Stresses archaeological sources, Latin literature, Roman life and institutions, Roman contributions to Western civilization. *Allen; Y.*

532 History of Women in the Middle East (5)

Main themes, divided chronologically and thematically, include the history of veiling, polygamy, divorce, and laws of personal status during the early periods of Islam; a reexamination of "harem politics" and the role of women in the Ottoman empire; the effects of Westernization and modernization in the 19th-century societies; and recent trends such as the enforcement of the veil in the Islamic Republic of Iran and Egyptian fundamentalist movements; section on women poets and novelists. *Quinn; Y.*

534 The Arab-Israeli Dispute (5)

History of Arab-Israeli confrontation since 1890. Origins of Zionism and Arab Nationalism, impact of WWI and Peace Settlement, British Mandate for Palestine, political developments in Israel and Arab World since 1948, Great Power involvement in Middle East, and recent developments in conflict between Israel and Arabs. *Quinn; Y.*

535 Colloquium in Middle East History (5)

Literature and source materials in Middle East since 1914; readings and reports. *Quinn; D.*

535A Middle East History to 1800 (5)

Islamic history and civilization from rise of Islam to end of 18th century. Role of prophet Muhammad, doctrines and institutional system of Islam, medieval Islamic caliphates and their cultural achievements, and contributions of Persians and Turks to Islamic civilization. *Quinn; Y.*

535B Middle East History Since 1800 (5)

History of Middle East since era of French Revolution. Disintegration of Ottoman Empire; emergence of contemporary Middle East political system; impact of nationalism, secularism, and industrialism on region; and position of Middle East in contemporary world affairs. *Quinn; Y.*

541 Colloquium in African History (5)

Literature and source materials on Africa; readings and reports. *Booth; D.*

541A Early Africa (5)

Africa in ancient world, spread of agriculture and iron working, rise of Islam, migrations of peoples, development of states, arrival of Europeans, beginnings of slave trade. *Booth; Y.*

541B Traditional Africa (5)

Africa in 17th century, slave trade, religious revolutions in western Sudan, development of African states, commercial revolution of 19th century, birth of plural society in South Africa, European partition of Africa. *Booth; Y.*

541C Modern Africa 1890 to Present (5)

Establishment of European rule in Africa, colonial period, rise of nationalism, decolonization and independence, problems of modern Africa. *Booth; Y.*

542A South Africa to 1899 (5)

Establishment and transformation of African societies (Bantu's migrations); coming of Europeans; evolution of Cape society (black, white, colored); conflicting nationalisms; Great Trek; rise of Zulu empire and *mfecane*; mineral revolution and subjection of African chiefdoms; British imperialism and coming of South African war. *Booth; Y.*

542B South Africa Since 1899 (5)

South Africa (Boer) War and reconstruction; formation of Union; global war and racial/regional/class conflicts over land, labor, and politics; rise of Afrikaner nationalism and triumph of apartheid; rise and radicalization of African nationalism; collision of nationalisms and expansion of conflict in the 1970s; South Africa and the modern world. *Booth; Y.*

543 Revolutions in Southern Africa (5)

Historical background and developments to present of revolutions in Mozambique, Angola, Zimbabwe (Rhodesia), Namibia (South West Africa), and Azania (South Africa). *Booth; D.*

544A History of the Malay World (5)

Comparative view of southeast Asian archipelago, emphasizing Indonesian civilization after 1750. Penetration of West, struggle with imperialism and modernization, and present dilemmas. Indigenous views focus of attention. *Frederick; D.*

544B History of Burma and Thailand (5)

Comparative study of neighboring Buddhist states, emphasizing themes of change and continuity since mid-18th century. Special attention given to divergent responses to colonialism and Western style development and to similarities in political and social forms. *Frederick; D.*

544C History of Vietnam (5)

Modern Vietnamese civilization since 15th century, emphasizing political and social change after 1800. Special attention given to Vietnamese struggle with outside powers, including China, France, U.S., and Soviet Union. *Frederick; D.*

545A Southeast Asia to ca. 1750:**The Creative Synthesis (5)**

Highlights of pre- and proto-history and development of classical states. Emphasis on cultural synthesis (Hindu, Buddhist, Muslim, and animist influences) and theme of change and continuity in both Great and Little traditions of region. *Frederick; Y.*

545B Southeast Asia, ca. 1750 to 1942:**Change and Conflict (5)**

Indigenous change and widening effects of Western penetration, with emphasis on social and cultural developments. Nature of colonialism in region and response of colonized seen in light of both traditional and modern influences. *Frederick; Y.*

545C Southeast Asia, 1942 to the Present:**The Rise of New States and Societies (5)**

Japanese occupation and its relationship to great national revolutions of 1940s. Social and cultural contents of nationalism and revolt, search for new political forms, and struggle against disunity and poverty. *Frederick; Y.*

546A Traditional China (5)

Historical overview of China's cultural development, including opposing schools of Taoism and Confucianism, fabulous artistic heritage, values of familism, and evolution of premodern world's largest government and its means of ruling world's largest society. *Jordan; D.*

546B Modern China (5)

Survey of long, traumatic road from China's weakness against Western imperialism and dynamic modern forces in 1800s through reaction of Chinese intellectuals against long-held traditional ways and ensuing nationalism and communism in 20th century. Mao's role in creation of new China reassessed and related to post-Mao Chinese goals and place in world. *Jordan; D.*

548A Traditional Japan (5)

Development of Japan's early civilization, including indigenous elements and those derived from Korea and China. Political development of Japan leading to its position vis-à-vis Western nations in 19th century. *Jordan; D.*

548B Modern Japan (5)

Political weakness of Tokugawa system, leading to opening of Japan to Western trade and restoration of emperor; favorable economic and political base, which allowed Japan to enter successfully into competitions with European nations; Japan's ultranational era and postwar reconstruction. *Jordan; D.*

549 Colloquium in History of East Asia in Modern Times (5)

Historical literature relating to process of modernization of China and Japan from 1860s to 1990s. Readings and reports. *Jordan; D.*

551 Medieval People (5)

In-depth inquiries into lives and epochs of representative individuals of Medieval Europe. Look at Middle Ages through biography. *Reeves; Y.*

552 Medieval Civilization (5)

Transmission of Christianity and classical culture to barbarians and their work of combining the two into new civilization in early Middle Ages. Medieval civilization at its height: church, schools, scholastic thought, and secular culture. *Reeves; Y.*

555 The Age of Michelangelo (5)

The life of Michelangelo (1475–1564) spans the two most significant movements in early modern European history: the Renaissance and the Reformation. All of his work, artistic and literary, reflects these movements. This course deals with philosophy, theology, architecture, art history, literature, and history. *Bebb; Y.*

556A Italian Renaissance (5)

Major political, social, economic, and cultural currents of Italian city-states from 1150 to 1550. Focus on Dante, Petrarch, Boccaccio, Bruni, Machiavelli, Guicciardini, Michelangelo, Leonardo da Vinci, etc. *Bebb; Y.*

556B Northern Renaissance (5)

History of Renaissance outside Italy: politics, economics, sociology, and intellectual currents of Germany, France, Spain, Burgundy, and England from 1300 to 1600. Treated thematically, course focuses on Erasmus, More, Ximenes, Reuchlin, Hutten, Bude, etc. *Bebb; Y.*

556C Reformation (5)

Protestant, Catholic, and Counter-Reformations in Europe, showing their relationship to social, political, economic, and religious movements of 15th and 16th centuries. Roles of Luther, Zwingli, Calvin, Cranmer, Erasmus, Loyola, etc.; Protestant and Catholic churches and sects in western and eastern Europe. *Bebb; Y.*

557 Florentine People (5)

Major figures in Florence from 1300 to 1600, from Dante to Galileo. Concerned with some originators of modern thought in areas of artistic theory, poetic form, Italian language, political ideas, scientific method, and historical composition. *Bebb; D.*

558A Early Modern Europe, 1559–1648 (5)

Main political, economic, and social developments during age of Spanish hegemony: Hapsburg power, wars of religion and ideological struggle, challenge of Bourbon France—Henry IV and Richelieu. *Baxter; Y.*

558B Early Modern Europe, 1648–1715 (5)

Main political, economic, and social developments: rise of absolutism and France of Louis XIV, French hegemony and its challenges, society of hierarchy. *Baxter; Y.*

558C Early Modern Europe, 1715–1774 (5)

Main political, economic, social, and intellectual developments: change from society of "estates" to that of class, New Husbandry, Industrial Revolution, rise of Prussia and Frederick the Great, balance of power, and Enlightenment and Enlightened Despots. *Baxter; Y.*

559 Philosophies of History (5)

Study and discussion of different philosophies of history dating from ancient to modern period. Analysis of how thinkers have taken empirical data of history and shaped them into metaphysical form. *Reeves; Y.*

560 Women in European History (5)

The family, work, feminism, and women and politics are major topics of this introduction to women's history in France, England, Germany, and Russia from Renaissance to present, with emphasis on more recent developments. *Harvey; D.*

561 The French Revolution (5)

The French Revolution traditionally has been seen as the dividing line in history, separating the Old Regime from modern times. This course will examine the origins, course of events, and the significance of the French revolutionary experience. *Baxter; D.*

562A Europe 1814–1871 (5)

Europe from Congress of Vienna through Franco-Prussian War. Growth of liberalism and nationalism, revolutions of 1830 and 1848, industrial revolution, unification of Italy and Germany, social and intellectual movements. *McGeoch; Y.*

562B Europe 1871–1914 (5)

Development of Austria-Hungary, France, Italy, Germany, Great Britain, and Russia including imperialism. Background of WWI and social and intellectual movements. *Goda, McGeoch; Y.*

564A Europe Between World Wars (5)

Fascism, communism, world depression, and 20-Year Armistice between 1919 and 1939; social, economic, and intellectual approach. *Goda, Herf, Whealey; Y.*

564B Contemporary Europe (5)

Europe since 1945: postwar settlement, cold war, E.E.C.; survey of developments in Britain, France, Italy, Germany, and some smaller countries. *Goda, Herf; Y.*

566A Modern France in the 19th Century (5)

Rise and fall of Napoleon I; his impact on France and Europe; monarchist interlude; revolution of 1848 and election of Louis Napoleon; Second Empire, liberal and authoritarian; wars and transformation of Europe; fall of Napoleon and Paris Commune; Third Republic. *Chastain; Y.*

566B Modern France in the 20th Century (5)

Dynamic and stagnant aspects; nostalgia and rejection of 20th century; impact of 20th century; democracy in France; European and colonial wars; communist movement from Popular Front to Common Program; anticommunism in France; French in changing world; De Gaulle, his predecessors, and his successors. *Chastain; Y.*

568A Modern Germany in the 19th Century (5)
Cosmopolitanism and movement to create national German state; rise of capitalism and decline of handicraft; liberation of German peasantry; revolution of 1848 and reaction; blood and iron chancellor; Germany's rise to European predominance; rise of worker movement; German society at turn of century. *Chastain, Herf; Y.*

568B Modern Germany in the 20th Century (5)
Germany on eve of WWI; military fiasco and creation of Weimar Republic; Weimar, Berlin, Munich, and Dresden; attempt to forge democracy; Third Reich and transformation of German society; WWII and Final Solution; Communist Germany and Federal Germany; two societies and two states, 1945–1990. *Chastain, Herf; Y.*

570 History of the Byzantine Empire 324–1453 (5)

Decay of Roman world and emergence of Christian Empire, 324–717; Medieval Roman Empire, 717–1056; weakening of Central Administration and apparent revival under Comneni, 1025–1204; Byzantium and neighboring world, 1204–1453; church and state; education and learning; Byzantine art; social, political, and military developments. *Kaldis; Y.*

572A Balkans in Early Modern Period, 1453–1804 (5)

Ethnographic structure of Balkan peoples under rule of Ottoman Empire. Ottoman institutions and society; political, social, economic, religious, and cultural developments in Balkans in 15th, 16th, 17th, and 18th centuries. *Kaldis; Y.*

572B Balkans in 19th Century, 1804–1878 (5)
Evolution of modern Balkan nationalism and rise of Balkan states. Ottoman dissolution and Balkan revolutionary nationalism; political, social, economic, religious, and intellectual developments; domestic Balkan policy and foreign intervention. *Kaldis; Y.*

572C Balkans in 20th Century, 1878–Present (5)
Historical, cultural, and ethnic background of Balkan peoples. Social, economic, political, and intellectual developments in Balkans; communication of southeast European states. *Kaldis; Y.*

574A Balance of Power: Napoleon to the Kaiser (5)

Diplomatic history from Congress of Vienna to WWI. Age of Metternich, Italian and German unification, new imperialism, and prewar alliances and alignments. *McGeoch; Y.*

574B History of International Diplomacy, 1914–1939 (5)

International problems of peace and war, international organization and alliances. *Goda, Whealey; Y.*

574C History of International Diplomacy, 1939–Present (5)

International problems of peace and war on worldwide scale since 1939, international organization and alliances. *Goda, Whealey; Y.*

576 Biography: Leaders in 19th-Century Europe (5)

Lives of great and near-great in 19th-century Europe. *McGeoch; D.*

582A History of Russia (5)

Russia from earliest times to 1825. Kievan Russia, Muscovy, emergence of Tsarist Russia. Territorial expansion and role as great power in Europe and Asia. *Miner; Y.*

582B Russia: Road to Revolution, 1825–1917
Tsarist Russia to Soviet Union, 1825–1917; background for revolution. Bolshevik seizure of power and consolidation of dictatorship. *Miner; Y.*

582C Soviet Union (5)

Soviet Union after death of Lenin (1924); internal affairs of Communist regime. *Miner; Y.*

582D The Soviet Union in World War II (5)

History of the Soviet Union during WWII. Topics covered include wartime diplomacy, espionage, social and political history of the USSR during the war, the creation of the communist states in eastern Europe after the war, and the origins of the cold war. *Miner; Y.*

589 Later Medieval England, 1307–1485 (5)

Comprehensive examination of political, social, intellectual, ecclesiastical, and economic aspects of period. *Reeves; D.*

590A Tudor England (5)

England in 16th century. Tudor politics, English Reformation, and major cultural and economic developments of Shakespeare's England. *Harvey; Y.*

590B Stuart England (5)

England in 17th century. Constitutional crisis of Stuart period, civil war and revolution, and major cultural and economic developments, including attention to folk culture. *Harvey; Y.*

591 Colloquium in English History to 1714 (5)

Early modern English history from multidisciplinary perspectives. *Harvey; D.*

591A English History to 1688 (5)

Stresses institutional aspects of medieval England and social, political, and constitutional developments in Tudor and Stuart periods. *Y.*

591B English History Since 1688 (5)

Emphasizes cultural and economic developments, growth of British Empire, constitutional and social reforms, and impact of WWI and WWII. *Rauschenberg; Y.*

592A Georgian England (5)

Political, social, intellectual, cultural, and economic developments of England in years prior to and during American and French revolutions. *Y.*

592B Victorian England (5)

England from 1815 to 1900, with primary focus on political and economic developments that produced democratization of British life. *Richter; Y.*

592C 20th-Century England (5)

England from 1900 to present: beginning of welfare state, WWI, 1920s, Great Depression, road to WWII, and postwar welfare state. *Rauschenberg; Y.*

594A The Medieval English Constitution (5)

English government from Anglo-Saxon times to end of Middle Ages. Growth of machinery of monarchy, central administration, courts, and common law. Rise of Parliament. *Reeves; D.*

595 History of Canada (5)

Introduction to Canada: its exploration and development under France and England, and its emergence as important modern nation. *Rauschenberg; D.*

596 Quantitative Methods in History (5)

Introduction to descriptive and inductive statistical techniques used in historical research and analysis of current literature employing such techniques. Instruction in use of computer included. *Field; D.*

597A Representative Historians and Their Writings: American History Emphasis (5)

Readings in historical logic and method. Development of historical profession in U.S. from early times to present as phase of American social and intellectual history. In-depth consideration of important writers of American history and major schools of interpretation. *Hamby; Y.*

597B Representative Historians and Their Writings: European History Emphasis (5)

Typical historians from time of Herodotus. Readings from their masterpieces to illustrate schools of interpretation, philosophies of history, and development of historical writing. Noteworthy historians in European history. *Herf; Y.*

597C African Historiography (5)

Related philosophies of history, the uses of history, colonial and post-colonial African historiography, research methodology, use of oral sources, interdisciplinary approaches, and new directions in research. *Booth; D.*

598A Directed Study: American History (1–6)

Prereq: 24 hrs, perm. Intensive individual work either in research or individual systematic reading along lines of student's special interest and under supervision of staff members. *Y.*

598B Directed Study: European History (1–6)

Prereq: 24 hrs, perm. Intensive individual work either in research or individual systematic reading along lines of student's special interest and under supervision of staff members. *Y.*

598C Directed Study: World History (1–6)

Prereq: 24 hrs, perm. Intensive individual work either in research or individual systematic reading along lines of student's special interest and under supervision of staff members. *Y.*

598D Problems in History (General) (1–6)

Prereq: 24 hrs, perm. Intensive individual work either in research or individual systematic reading along lines of student's special interest and under supervision of staff members. *Y.*

600/800 Seminar: Colonial and Revolutionary America (10)

Readings and research in U.S. history prior to 1789. Presented in two-quarter sequence. No credit granted until second quarter is completed. *Steiner; D.*

601A/801A Colloquium in Colonial American History (5)

Literature and source materials; readings and reports. *Steiner; D.*

601B/801B Colloquium in the Era of the American Revolution (5)

Literature and source materials; readings and reports. *Steiner; D.*

602/802 Colloquium in U.S. Women's History (5)

Literature and source materials in field of early national period of American history; readings and reports. *Jellison; Y.*

607/807 Colloquium in the Era of Sectional Controversy, 1819–1850 (5)

Literature and source materials; readings and reports. *Field; D.*

608/808 Seminar in United States History, 1850–1900 (10)

Selected topics in political history of U.S. in late 19th century. Presented in two-quarter sequence. No credit granted until completed. *Field; D.*

609/809 Colloquium in the Era of Foundations of Modern America, 1850–1900 (5)

Literature and source materials; readings and reports. *Field; D.*

610/810 Seminar in 20th-Century United States History (10)

Presented in two-quarter sequence. No credit granted until second quarter completed. *Hamby, Pach; D.*

611/811 Colloquium in the History of the United States in Recent Times (5)

Literature and source materials; readings and reports. *Hamby, Pach; D.*

614/814 Seminar in the Social, Intellectual, and Cultural History of the United States (10)
Presented in two-quarter sequence. No credit granted until second quarter completed. *Alexander, Jellison; D.*

615/815 Colloquium in the Social, Cultural, and Intellectual History of the United States (5)
Literature and source materials; readings and reports. *Alexander, Jellison; D.*

616/816 Seminar in the History of United States Foreign Relations (10)
Presented in two-quarter sequence. No credit granted until second quarter completed. *Hoff, Pach; D.*

617/817 Colloquium in the History of American Foreign Relations (5)
Literature and source materials; readings and reports. *Hoff, Pach; D.*

621/821 Colloquium in Regional United States History (5)
Literature and source materials; readings and reports. *Staff; D.*

627/827 Colloquium in Recent Latin American History (5)
Literature and source materials; readings and reports. *Grow; D.*

629/829 Colloquium in History of Ancient Greece (5)
Literature and source material of ancient Greek civilization. Themes vary from year to year. May be repeated for credit. *Richter; D.*

640/840 Seminar in African History (10)
Presented in two-quarter sequence. No credit granted until second quarter completed. *Booth; D.*

644/844 Seminar: Southeast Asia (10)
Presented in two-quarter sequence. No credit granted until second quarter completed. *Frederick; D.*

645/845 Colloquium in History of Southeast Asia (5)
Literature of southeast Asian history, general culture, developments in 19th and 20th centuries. Readings and reports. *Frederick; D.*

646/846 Seminar: East Asian History (10)
Presented in two-quarter sequence. No credit granted until second quarter completed. *Jordan; D.*

652/852 Seminar in Medieval History (10)
Presented in two-quarter sequence. No credit granted until second quarter completed. *Reeves; D.*

657/857 Seminar in Renaissance-Reformation (10)
Presented in two-quarter sequence. No credit granted until second quarter completed. *Bebb; D.*

658/858 Seminar in Early Modern European History (10)
Presented in two-quarter sequence. No credit granted until second quarter completed. *Baxter; D.*

661/861 Colloquium in French Revolution (5)
French Revolution as prototype of revolutions: background, immediate causes, pattern of development, role of ideas and individuals in great social upheaval. *Baxter; D.*

662/862 Seminar in 19th-Century European History (10)
Presented in two-quarter sequence. No credit granted until second quarter completed. *McGeoch, Chastain; D.*

663/863 Colloquium in 19th-Century Europe (5)
Literature and source materials; readings and reports. *McGeoch; D.*

664/864 Seminar in 20th-Century European History (10)
Presented in two-quarter sequence. No credit granted until second quarter completed. *Herf, Miner; D.*

667/867 Colloquium in Modern France (5)
Literature and source materials; readings and reports. *Chastain; D.*

674/874 Seminar in European Diplomacy Since 1815 (10)
Presented in two-quarter sequence. No credit granted until second quarter completed. *Goda; D.*

683/883 Colloquium in Russian and Soviet History (5)
Literature and source materials; readings and reports. *Miner; D.*

693/893 Colloquium in British History Since 1714 (5)
Literature and source materials; readings and reports. *Rauschenberg; D.*

695 Thesis (as recommended by dept)

798A Directed Study: American History (1-6)
Prereq: 24 hrs, perm. Intensive individual work in either research or individual systematic reading along lines of student's special interest and under supervision of staff members.

798B Directed Study: European History (1-6)
Prereq: 24 hrs, perm. Intensive individual work in either research or individual systematic reading along lines of student's special interest and under supervision of staff members.

798C Directed Study: World History (1-6)
Prereq: 24 hrs, perm. Intensive individual work in either research or individual systematic reading along lines of student's special interest and under supervision of staff members.

894 Independent Study (1-16)
Prereq: Eligibility determined by grad faculty.

895 Dissertation (as recommended by dept)

Indonesian

See Foreign Languages and Literatures.

Linguistics

The Department of Linguistics offers a Master of Arts in linguistics and the teaching of English as a second or foreign language (TESL/TEFL). The program normally takes two years to complete and requires a thesis or research essay.

Admission to graduate study in linguistics requires no specific undergraduate preparation, but a background in English, foreign language, speech, psychology, mathematics, or philosophy is particularly relevant. Transcripts of all previous study must be submitted and must indicate strong promise of success in graduate study. Transcripts also must include evidence

of two years of college-level study of foreign language. Admission is possible if you cannot meet this requirement, but it must then be satisfied by concurrent nondegree study. Nonnative speakers of English may use their study of English to satisfy this requirement. Teacher training and experience are desirable as preparation for native students intending to follow the TEFL/TESL curriculum. For nonnative applicants, both teacher training and an undergraduate major in English are recommended and a TOEFL score of 600 or higher is required.

While there is no specific deadline for submission of application materials, new applicants are normally admitted only in the fall quarter. Applicants for financial aid for the following academic year must apply by April 1.

A four-quarter sequence of courses in teaching English as a foreign language (TEFL) is available for graduate students from any field. The sequence includes courses in linguistic theory and TEFL methodology: LING 510, 550, 575, 580, and 582. It is offered every academic year and during the summer in odd-numbered years. Admission to the linguistics program is not required, but international students must have a TOEFL score of 575 or higher.

Validation to teach ESL in Ohio public schools is also offered (as an endorsement added to certification in another field). Required courses are LING 550, 575, 581, 583, six credits of 510, and EDCI 505 or 508. A national specialty area test also must be passed. The program can be completed in two summers and does not require admission to the linguistics program.

Specific information about the programs and requirements is available from the chair, Department of Linguistics, Ohio University, Gordy 383, Athens OH 45701-2979.

Linguistics Courses (LING)

510 Language Teaching Practicum (3)
Supervised graduate student teaching. Required twice for all M.A.-TEFL majors and all teaching associates. *F, W, Sp, Su; Y.*

515 Distributed Learning Courseware Development I (4)

First course in a sequence designed to provide training in developing instructional courseware that can be distributed on disks or via the Internet. *Soemarmo; Su; Y.*

516 Distributed Learning Courseware Development II (4)

Prereq: 515. Second course in a sequence designed to provide training in developing instructional courseware that can be distributed on disks or via the Internet. *Soemarmo; Su; Y.*

520 Linguistics and Semiotics (4)

Prereq: 550. Analysis and interpretation of cultural sign systems from the perspective of linguistic theory and methodology. *Flanigan; D.*

540 Introduction to Bilingualism (5)

Prereq: 550. Introduction to basic aspects of bilingual education from legal, sociological, linguistic, and educational perspectives. *Flanigan; Sp; Y.*

545 Instructional Materials in Bilingualism (5)

Prereq: 540. Analysis and creation of bilingual teaching materials. *D.*

550 Introduction to General Linguistics (5)

Technical introduction to linguistics, devices of language description, and methods of linguistic analysis. *McGinn; F; W, Sp, Su; Y.*

551 Computers for Language Teaching I (4)

Prereq: 550. Introduction to uses of computers for language teaching, software selection, and creation of supplementary computer-assisted language learning (CALL) materials. *Soemarmo; Sp; Y.*

552 Computers for Language Teaching II (4)

Prereq: 551 and 580 or ML 545. Creation of CALL materials using authoring packages, authoring languages, or BASIC programming language. *Soemarmo; Su; Y.*

553 Computers for Language Teaching III (4)

Prereq: 552. Introduction to development of CALL materials using speech synthesis, interactive audiotape, videotape, or videodisc player. *Soemarmo; Su; D.*

555 Introduction to Graduate Study in Linguistics (5)

Introduction and orientation to field of linguistics and its research resources. *Bond; F; Y.*

560 Phonology (5)

Introductory course in analysis of sound systems of natural languages. *Coady; F; Y.*

565 Theories of Phonology (5)

Prereq: 560. Latest developments in phonological theory, concentrating on theory of generative phonology in contrast with classical phonemic theory. *Bond; D.*

570 Syntax (5)

Introduction to theories and applications of grammatical analysis. *McGinn; F; Y.*

572 Theories of Grammar (5)

Prereq: 570. Study of competing contemporary models of grammatical description. *McGinn; Soemarmo; D.*

575 Theories of Language Learning (5)

Prereq: 550. Theories of first- and second-language acquisition and their applications to development and evaluation of language teaching methodology. *Flanigan, Jarvis; W, Su; Y.*

580 TEFL Theory and Methodology (5)

Prereq: 550, 575. Second language teaching theory and methodology, with emphasis on teaching English as foreign language. *Jarvis, Bell; W, Su; Y.*

581 Methods and Materials in TESL (5)

Prereq: 550, 575. Introduction to techniques of teaching English in a second language context, with emphasis on the creation and evaluation of instructional materials for public school ESL. *Su; D.*

582 Materials in TEFL (5)

Prereq: 550, 575, 580. Theory and practice of analysis, evaluation, and creation of instructional materials for teaching English as foreign language. *Jarvis, Bell; Sp, Su; Y.*

583 Proseminar in TEFL: Testing (5)

Prereq: 582. Advanced research in special problems in testing English as a second or foreign language. *Jarvis; Sp; Y.*

585 Historical Linguistics (5)

Prereq: 560, 570. Study of genealogical and typological classification of languages, methods of historical analysis, and change in language systems. *Bond, McGinn; Sp; Y.*

590 Sociolinguistics I (5)

Prereq: 550. Language varieties and their social functions with implications for educational policy and national language planning. *Flanigan; F; Y.*

591 Sociolinguistics II (5)

Prereq: 590. Introduction to interrelationships between language and social groups. *Flanigan; D.*

595 Seminar in Area Linguistics (5)

Research on particular aspects of languages of given area. *McGinn; D.*

600 Studies in Linguistics (1-4)

Directed individual investigation of particular area of interest in linguistics. *F, W, Sp, Su; Y.*

620 Research in Linguistics (5)

Prereq: 575. Introduction to aspects of research design in applied linguistics. *Jarvis; F; Y.*

640 Topics in Applied Linguistics (5)

Prereq: 575. Critically examines basic assumptions, approaches, and methods of particular subfields of applied linguistics. *Sp; Y.*

652 Computational Linguistics (3)

Prereq: 550. Application of computers to linguistic research and teaching. *Soemarmo; D.*

661 Phonological Structures of English (4)

Prereq: 550, 560. Introduction to pedagogical issues related to the teaching of listening and speaking in ESL/EFL settings. *Coady; W; Y.*

671 Syntactic Structures of English (4)

Prereq: 570. Introduction to pedagogical issues related to the teaching of English grammar in ESL/EFL settings. *Jarvis, Bell; F; Y.*

675 Linguistic Semantics (5)

Prereq: 570. Semantic aspects of standard theory in generative grammar. *Soemarmo; W; Y.*

682 Proseminar in TEFL (5)

Prereq: 620. Research and writing on a special problem in teaching English as a second or foreign language. *Staff; W; Y.*

685 Proseminar in Applied Linguistics: Reading and Writing (5)

Group and individual research in the theories and applications of reading and writing research. *Coady, Jarvis; Sp; Y.*

690 Languages in Contact (4)

Prereq: 560, 570. Social, psychological, and pedagogical consequences of language contact, with emphasis on linguistic transfer, borrowing, and pidginization and creolization. *D.*

695 Thesis (5-10)

Prereq: 620. Advanced research culminating in thesis. *W, Sp; Y.*

696 Field Methods (5)

Prereq: 560, 570. Methods of eliciting, transcribing, organizing, and analyzing linguistic data. *Bond, McGinn; Sp; D.*

699 Proseminar in Linguistics (5)

Prereq: 675. Individual research and writing in general linguistics. *D.*

760 Seminar in Phonology (5)

Research on selected topics in phonological theory. *Bond, Coady; D.*

775 Seminar in Linguistic Semantics (5)

Prereq: 675. Survey of contemporary semantic theories. *Soemarmo; D.*

800 Readings in Linguistics (2-5)

Directed readings for advanced students. *F, W, Sp, Su; Y.*

Malaysian

See Foreign Languages and Literatures.

Mathematics

The Department of Mathematics offers the Master of Science and the Doctor of Philosophy. At the master's level, programs are available in applied mathematics, computer science, mathematics for secondary school teachers, and pure mathematics. At the doctoral level, you may specialize in algebra, analysis, topology, or applied mathematics. The principal feature of graduate study in mathematics is the possibility of designing a study plan to meet your individual needs and interests.

To be admitted to graduate study, you should have an undergraduate average of at least a B (3.0 on a 4.0 scale). If you plan to pursue the study of pure or applied mathematics, your undergraduate program should have included advanced calculus and junior- or senior-level courses in abstract and linear algebra. Students pursuing the computer science option should have completed at least a full course sequence in calculus and differential equations and computer science courses in C++, assembly language, computer organization, discrete structures, and data structures. Students specializing in secondary education should have completed the calculus sequence and courses in geometry and algebra. If you are admitted with deficiencies, you will be expected to make up the deficiencies during the first year.

The Master of Science degree may be taken with or without a thesis—no examination is required. Under the nonthesis option for pure and applied mathematics majors, the minimum amount of coursework is 45 quarter hours, half of which should be earned in course sequences numbered 600 or higher. If most or all of your work is on the 500 level, the graduate committee may require more than 45 hours, but not more than 60. (The usual requirement is 55 hours.) The coursework should include at least two mathematics sequences, e.g., algebra, analysis, topology.

To pursue the computer science option, you must complete a minimum of 56 graduate hours distributed in a manner to assure a sound program of study. Full-time students normally complete the program in four quarters, while graduate associates may take two years.

Specific minimum requirements for the computer science option are 12 hours of mathematics sequence (see below), 4 hours of mathematics in addition to a sequence, 30 hours of computer science including one concentration described below, and 10 hours of electives in computer science or mathematics or a research project.

The acceptable mathematics sequences for this degree program are MATH 511, 513A, B Linear and Abstract Algebra; MATH 544, 545, 546 Numerical Methods; MATH 550A,B,C Mathematical Statistics; MATH 560A, B, C Advanced Calculus; MATH 613A, B, C Abstract Algebra; MATH 660A, B, C Real Analysis.

The areas of concentration in computer science are CS 504, 506, 510 Theoretical Computer Science; CS 511, 512, 613 Concurrent and Parallel Processing; CS 542, 544, 558 Operating System and Communications; CS 562, 564, 568 Information Retrieval and Databases; CS 580, 582, 583 Artificial Intelligence; CS 657A,B,C, 612 Software Engineering and Real Time Systems.

With the assistance of your faculty advisor, you must submit a plan of study approved by the graduate chair by the end of your first quarter. Any changes to this study plan must be approved by your faculty advisor and the graduate

chair at least one quarter before you apply for graduation.

The Department of Mathematics, together with the College of Education, offers a joint program for secondary school teachers. The master's degree may be taken in either the College of Education or the Department of Mathematics. Expect at least half of your credits to be earned in mathematics. Topics studied are geometry, algebra, number theory, and analysis. A minimum of 50 hours is required.

No specific courses are required for the Ph.D., but each student must pass a comprehensive examination and write an acceptable dissertation.

The dissertation is expected to be a scholarly work demonstrating your ability to understand, organize, improve, and present mathematical ideas of outstanding importance, depth, or interest. It should include original mathematical research and be worthy of publication.

The Department of Mathematics encourages its students to develop the ability to read mathematics in those languages which predominate the literature of the discipline. Students in post-master's courses are expected to understand mathematics written in one or more of the following languages: French, German, or Russian.

All graduate-level computer science courses except 521, 522, and 599 may be used to satisfy requirements for a graduate degree in mathematics.

You may apply for admission for any quarter. To apply for financial aid for the following academic year, you must submit application materials by March 1, although late applications will be considered if vacancies exist.

Mathematics Courses (MATH)

500 History of Mathematics (4)
Main lines of mathematical development in terms of contributions made by great mathematicians: Euclid, Archimedes, Descartes, Newton, Gauss, etc.

506 Foundations of Mathematics II (4)
Introductory topics in set theory and axiomatic development of real number system.

507 Number Theory (4)
Prereq: 307. Topics in number theory.

510 Matrix Theory (4)
Primarily intended for science and engineering majors. Topics include matrix algebra and matrix calculus, matrix solutions of systems of linear equations, eigenvector and eigenvalue problems, quadratic forms, and inner product spaces.

511 Linear Algebra (4)
Vector spaces and linear transformations; matrices and determinants; characteristic roots and similarity; dual spaces; classification of quadratic and Hermitian forms.

512 Introduction to Algebraic Coding Theory (4)
Prereq: 211, 410. Encoding and decoding. Vector spaces over finite fields. Linear Codes, parity-check matrices, syndrome decoding, Hamming Codes, and Cyclic Codes.

513A Introduction to Modern Algebra (4)
Prereq: 511 or equivalent mathematical experience. Groups, permutation groups, subgroups, normal subgroups, quotient groups. Conjugate classes and class equation formula and its application to p-groups. Fundamental theorem on homomorphisms.

513B Introduction to Modern Algebra (4)
Prereq: 513A. Fundamental theorem on finite abelian groups and its consequences. Cauchy theorem and first Sylow theorem. Polynomial rings. UFD and Euclidean domains. Maximal ideals. Algebraic extensions and splitting fields. Fundamental theorem of Galois theory.

529 Topics in Mathematics of Elementary and Secondary Schools (1-5)
Selected topics related to teaching of mathematics in grades K-12. May be repeated for credit.

539 Topics in Geometry (1-5)
When demand is sufficient, a course in some phase of geometry will be offered under this number. May be repeated for credit.

540 Vector Analysis (4)
Vector algebra and its applications. Vector calculus and space curves. Scalar and vector fields, gradient, divergence, curl, and Laplacian. Line and surface integrals, divergence theorem, Stoke's theorem, and Green's theorem.

541 Fourier Analysis and Partial Differential Equations (4)
Representation of functions as sums of infinite series of trigonometric functions, Bessel functions, Legendre polynomials, or other sets of orthogonal functions. Use of such representations for solution of partial differential equations dealing with vibrations, heat flow, and other physical problems.

542 Theory of Linear and Nonlinear Programming (4)
Prereq: 510 or equiv; computer programming experience desirable. Minimization of functions subject to equality and inequality constraints. Kuhn-Tucker theorem, algorithms for function minimization, such as steepest descent and conjugate gradient, and penalty function method. (Not a course in computer programming.)

543 Mathematical Modeling and Optimization (4)
Prereq: 211, 340, or 410, FORTRAN. Differential equation models of wide variety of physical, social, and biological phenomena presented. Qualitative analysis introduced and used to investigate models. Optimal criteria incorporated to convert models to optimal control problems. Pontriagin's maximal principle used to find analytic solutions. Numerical solutions to optimal control problems also treated.

544 Introduction to Numerical Analysis (4)

Prereq: CS 521 and undergrad course in differential equations. Iterative methods for solving nonlinear equations, polynomial interpolation and approximations, numerical differentiation and integration, numerical solution of differential equations, error analysis.

545 Advanced Numerical Methods (4)

Prereq: 541 and 544 or EE 778 and CHE 501. Initial and boundary value problems; numerical solutions of parabolic, elliptic, and hyperbolic equations; stability; error estimates; applications to engineering problems. (Also offered as ET 545.)

546 Numerical Linear Algebra (4)

Prereq: MATH 510 and FORTRAN. Floating point arithmetic, numerical solution of systems of linear equations using Gaussian elimination and its variants, numerical techniques for eigenvalues, error analysis, and implementation of algorithms on computer.

549 Advanced Differential Equations (4)

Prereq: undergrad course in differential equations and 510 or 511. Introduction to theory of ordinary differential equations with special attention to oscillation, plane autonomous systems, Liapunov theory, and quadratic functionals.

550A Theory of Statistics (4)

Probability distributions of one and several variables, sampling theory, estimation of parameters, confidence intervals, analysis of variance, correlation, and testing of statistical hypotheses.

550B Theory of Statistics (4)

Prereq: 550A. Continuation of 550A. See 550A for description.

550C Theory of Statistics (4)

Prereq: 550B. Continuation of 550A-B. See 550A for description.

551 Stochastic Processes (4)

Prereq: 550B. Markov chains, Poisson process, birth and death process, queuing, and related topics.

560A Advanced Calculus (4)

Prereq: undergrad course in introductory analysis. Critical treatment of functions of one or several variables. Topics in the 560A-B-C sequence include the basic topological features of Euclidean spaces, a careful study of limits and continuity, Riemann-Stieltjes integration, uniform convergence, and multidimensional differentiation and integration.

560B Advanced Calculus (4)

Prereq: 560A. Continuation of 560A. See 560A for description.

560C Advanced Calculus (4)

Prereq: 560B. Continuation of 560A-B. See 560A for description.

570 Complex Variables (4)

Analytic and harmonic functions, Cauchy integral and residue theorems, contour integration, Taylor and Laurent expansions, conformality and linear transformations with applications.

580A Elementary Point Set Topology (4)

Topology of Euclidean spaces and general metric spaces.

580B Elementary Point Set Topology (4)

Prereq: 580A. Introduction to general topological spaces.

599 Selected Topics in Mathematics (1-15)

May be repeated for credit.

600A Set Theory (5)

Introduction to axiomatic set theory; ordinals and cardinals; equivalents of axiom of choice.

600B Set Theory (5)

Prereq: 600A. Introduction to combinatorial set theory, trees, partitions relations, closed unbounded and stationary sets, Martin's Axiom.

613A Abstract Algebra (5)

Prereq: 513B. Groups, rings and fields, Jordan-Holder theorem, structure theorem for finitely generated abelian groups, integral domains, principal ideal rings, modules, linear algebras, field extensions, and Galois theory.

613B Abstract Algebra (5)

Prereq: 613A. Continuation of 613A. See 613A for description.

613C Abstract Algebra (5)

Prereq: 613B. Continuation of 613A-B. See 613A for description.

630A Tensor Analysis on Manifolds (5)

Prereq: 511, 560C. Manifolds, tensor algebra, vector analysis on manifolds, differential forms, exterior derivatives, Stokes theorem, Riemannian and semi-Riemannian manifolds, curvature and torsion tensors.

630B Tensor Analysis on Manifolds (5)

Prereq: 630A. Continuation of 630A. See 630A for description.

630C Tensor Analysis on Manifolds (5)

Prereq: 630B. Continuation of 630A-B. See 630A for description.

640A Numerical Analysis (5)

Prereq: 511, 570. Approximation by piecewise polynomial functions, variational principles, variational formulation of partial differential equations. The Rayleigh-Ritz-Galerkin method, convergence of approximations, time-dependent problems, isoparametric elements and nonconforming finite element methods, applications.

640B Numerical Analysis (5)

Prereq: 640A. Continuation of 640A. See 640A for description.

640C Numerical Analysis (5)

Prereq: 640B. Continuation of 640A-B. See 640A for description.

641A Methods of Applied Mathematics (5)

Prereq: 560C, 510 and 340. Course content varies. May be repeated for credit.

641B Methods of Applied Mathematics (5)

Prereq: 641A. Course content varies. May be repeated for credit.

641C Methods of Applied Mathematics (5)

Prereq: 641B. Course content varies. May be repeated for credit.

642A Optimization Theory (5)

Prereq: 560A,B,C; 510; 340. Classical problems of calculus of variation; Euler-Lagrange, Dubois-Reymond, Legendre, and Weierstrass necessary conditions; formulation of classical problems as nonlinear programming problems in function space.

642B Optimization Theory (5)

Prereq: 642A, 660C, FORTRAN. Numerical solutions of boundary value problems; formulation and solution of optimal control problems with set, equality, and inequality constraints; applications to economics, classical mechanics, and engineering.

642C Optimization Theory (5)

Prereq: 642B. Pontriagin's maximal principle is derived and applied to optimal control problems. Numerical solutions considered more fully.

645A Differential Equations (5)

Prereq: 560C, 510, 541. Gronwall's inequality; existence and uniqueness; linear equations; autonomous equations; periodic solutions; stability; characteristics of first-order p.d.e.; classification of second-order equations into elliptic, parabolic, and hyperbolic types; special consideration of Laplace's equation, heat equation, and wave equation; hyperbolic systems, etc.

645B Differential Equations (5)

Prereq: 645A. Continuation of 645A. See 645A for description.

645C Differential Equations (5)

Prereq: 645B. Continuation of 645A-B. See 645A for description.

647A Special Functions (5)

Prereq: 560C and 570, or 670A. Infinite products; Gamma, Beta, and Zeta functions; asymptotic series; cylindrical functions; spherical functions; orthogonal polynomials; Legendre, Hermite, and Laquerre polynomials.

647B Special Functions (5)

Prereq: 647A. Continuation of 647A. See 647A for description.

660A Real Analysis (5)

Prereq: 560C. Abstract measure and integration, Lebesgue measure on real line; Lp-spaces; Fubini and Radon-Nikodym theorems; differentiation theory.

660B Real Analysis (5)

Prereq: 660A. Continuation of 660A. See 660A for description.

660C Real Analysis (5)

Prereq: 660B. Continuation of 660A-B. See 660A for description.

670A Complex Analysis (5)

Prereq: 560C. Analytic functions, multivalued analytic functions, power series, complex integration, Cauchy integral theorem, its extensions and consequences. Residue theorem, Taylor and Laurent expansions, max-modulus principle and its generalizations, elementary conformal mapping, conformal representations, Riemann surfaces, Weierstrass and Mittag-Leffler's factorization theorems, simple periodic functions, simple properties of elliptic functions. Dirichlet problem.

670B Complex Analysis (5)

Prereq: 670A. Continuation of 670A. See 670A for description.

670C Complex Analysis (5)

Prereq: 670B. Continuation of 670A-B. See 670A for description.

671A Potential Theory (5)

Prereq: 560C and 570, or 670A. Newtonian and logarithmic potentials, their continuity and discontinuity properties, Dirichlet problems, subharmonic functions, harmonic functions, etc.

671B Potential Theory (5)

Prereq: 671A. Continuation of 671A. See 671A for description.

680A Point Set Topology (5)

Prereq: 560C. General topological spaces, product and quotient spaces, convergence, separation, countability properties, compactness and paracompactness, connectivity, metric spaces, completion, metrization, completely regular spaces, uniform spaces.

680B Point Set Topology (5)

Prereq: 680A. Continuation of 680A. See 680A for description.

680C Point Set Topology (5)

Prereq: 680B. Continuation of 680A-B. See 680A for description.

690 Independent Study (1-15)

Independent study of topics under guidance of faculty member. May be repeated for credit.

695 Thesis (arranged)

May be repeated for credit.

699 Topics in Mathematics (1-15)

May be repeated for credit.

710A Group Theory (5)

Prereq: 613C. Abelian groups, permutation groups, Sylow theorems, solvable groups, group extensions, free groups and free products, group representation, and characters.

710B Group Theory (5)

Prereq: 710A. Continuation of 710A. See 710A for description.

711A Theory of Rings and Modules (5)

Prereq: 613C. Rings with minimum condition, Wedderburn theorems, Jacobson radical, Jacobson density theorem, commutativity conditions, algebras, Goldie theorems, modules, and chain conditions.

711B Theory of Rings and Modules (5)

Prereq: 711A. Continuation of 711A. See 711A for description.

730A Differential Geometry—Classical (5)

Prereq: 613C, 660C, 680C. Local geometry of curves, local geometry of surfaces, tensors, Riemannian geometry, differential geometry in the large, applications.

730B Differential Geometry—Classical (5)

Prereq: 730A. Continuation of 730A. See 730A for description.

731A Differential Geometry—Modern (5)

Prereq: 613C, 660C, 680C. Differentiable manifolds, calculus of variations, Lie groups, differential geometry in Euclidean spaces, g-structures.

731B Differential Geometry—Modern (5)

Prereq: 731A. Continuation of 731A. See 731A for description.

740A Ordinary Differential Equations (5)

Prereq: 645B. Advanced topics in ODEs.

740B Ordinary Differential Equations (5)

Prereq: 740A. Continuation of 740A. See 740A for description.

740C Ordinary Differential Equations (5)

Prereq: 740B. Continuation of 740A-B. See 740A for description.

741A Partial Differential Equations (5)

Prereq: 645C. Advanced topics in PDEs.

741B Partial Differential Equations (5)

Prereq: 741A. Continuation of 741A. See 741A for description.

741C Partial Differential Equations (4)

Prereq: 741B. Continuation of 741A-B. See 741A for description.

760A Measure and Integration (5)

Prereq: 613C, 660C, 680C. Various types of measures and integrals in modern research.

760B Measure and Integration (5)

Prereq: 760A. Continuation of 760A. See 760A for description.

761A Functional Analysis (5)

Prereq: 660A. Normed linear spaces, Hilbert spaces, Hahn-Banach extension theorems, Banach-Steinhaus theorem, closed graph theorem, applications to differential and integral equations.

761B Functional Analysis (5)

Prereq: 761A. Topics selected from spectral theory, Banach algebras, integration in Banach spaces, linear topological vector spaces, and other topics.

761C Functional Analysis (5)

Prereq: 761B. Continuation of 761B. See 761B for description.

780A General Topology (5)

Prereq: 680C. Continuation of main line of development of 680A-B-C, but at deeper and more advanced level. Offered especially for students who intend to specialize in general topology.

780B General Topology (5)

Prereq: 780A. Continuation of 780A. See 780A for description.

780C General Topology (5)

Prereq: 780B. Continuation of 780A-B. See 780A for description.

809 Topics in the Foundation and History of Mathematics and in Number Theory (1-15)

Selected topics not offered in normal course offerings. May be repeated for credit.

819 Topics in Algebra (1-15)

Detailed study of advanced topics not covered in other algebra courses. May be repeated for credit.

829 Topics in the Teaching of Mathematics (1-15)

Selected topics not covered in regular course offerings. May be repeated for credit.

839 Topics in Geometry (1-15)

Selected topics not covered in regular offerings. May be repeated for credit.

849 Topics in Applied Mathematics (1-15)

Selected topics not covered in regular offerings. May be repeated for credit.

859 Topics in Probability, Statistics, and Stochastic Processes (1-15)

Selected topics not covered in regular offerings. May be repeated for credit.

869 Topics in Real Analysis (1-15)

Selected topics not covered in regular offerings. May be repeated for credit.

879 Topics in Complex Analysis (1-15)

Special topics not ordinarily covered in other courses. May be repeated for credit.

889 Topics in Topology (1-15)

Special topics not covered in other courses. May be repeated for credit.

890 Independent Study (1-15)

Independent study under guidance of faculty member. May be repeated for credit.

891 Seminar (1-15)

May be repeated for credit.

895 Dissertation (arranged)

May be repeated for credit.

Modern Languages

See Foreign Languages and Literatures.

Molecular and Cellular Biology

The Molecular and Cellular Biology Program offers graduate study leading to the Ph.D. in a broad range of areas in molecular and cellular biology. M.S. degrees with a concentration in molecular and cellular biology are also available in the Departments of Biological Sciences, Chemistry and Biochemistry, and Environmental and Plant Biology. The program provides and encourages an interdisciplinary approach to these studies.

Admission to the program requires simultaneous admission to the M.S. concentration in molecular and cellular biology or the Ph.D. program in the Department of Biological Sciences or Chemistry and Biochemistry. You must have a B.A., B.S., or M.S. in a biological or physical science. Criteria considered are coursework completed, grades, letters of recommendation, and scores on the Graduate Record Examination.

Unconditional admission requires an overall grade-point average of 3.0 on a 4.0 scale. Financial aid is contingent upon unconditional admission. International students for whom English is not the primary language are required to have earned a minimum grade of 620 on the Test of English as a Foreign Language (TOEFL). Although applications are considered at any time, to maximize the possibility of financial aid, submit completed applications and supporting materials before March 1.

Ph.D. study and research are guided by a doctoral advisory committee, which is formed by the end of the third quarter of study in the program. A great deal of the responsibility for determining the program of study is left to the committee. However, a required core curriculum consists of a year of biochemistry (CHEM 590, 591, 592), cell biology (PBI 531 or MCB 760), molecular biology (MCB 720), and molecular and cellular biology laboratory (MCB 730).

You are required to register for MCB 741 Seminar in Molecular and Cellular Biology during three quarters each year and must present at least one seminar each year. You must receive doctoral advisory committee approval of a written research proposal by the fifth quarter in the program and pass written and oral qualifying examinations by the end of the second year of study. Students receiving support from the Molecular and Cellular Biology Program are required to serve as a teaching associate for at least two quarters per academic year. You must defend your dissertation before the doctoral advisory committee at a public forum. In addition, you are required to present the dissertation research as a program seminar.

Study and research in the M.S. concentration in molecular and cellular biology are guided by a master's advisory committee, which is formed by the end of your third quarter of study in the program. The required core curriculum consists of biochemistry (CHEM 590), cell biology (PBIO 531 or MCB 760), molecular biology (MCB 720), and molecular and cellular biology laboratory (MCB 730). You are required to register for MCB 741 Seminar in Molecular and Cellular Biology during three quarters each year and to present at least one seminar each year. Additional course requirements for M.S. students admitted through the Department of Biological Sciences include biostatistics (BIOS 670); the Department of Chemistry and Biochemistry include additional biochemistry courses (CHEM 591 and 592); and the Department of Environmental and Plant Biology include plant physiology (PBIO 524), plant anatomy (PBIO 512), and one course from area C of the departmental modus (i.e., PBIO 525 Plant Ecology, PBIO 526 Physiological Plant Ecology, PBIO 754 Experimental Ecology, or PBIO 757 Plant Speciation). You must receive master's advisory committee approval of a written research proposal within one year after entry into the program; this research proposal must also be approved by the graduate chair of your home depart-

ment. You also must pass a written qualifying exam immediately after your third quarter of academic study. If you are receiving support from the Molecular and Cellular Biology Program, you are required to serve as a teaching associate for at least two quarters per academic year. You are required to present your thesis at a public forum and orally defend it before your master's advisory committee.

Molecular and Cellular Biology Courses (MCB)

710 Advances in Signal Transduction (5)
Prereq: CHEM 592. Introduction to the advanced concepts in the area of agonist-receptor mediated biochemical signalling mechanisms. The topics include principles, experimental techniques and quantitative analysis of agonist-receptor interaction, ion channels, adrenergic and cholinergic receptors, classical and low molecular weight G proteins, second messengers, oncogenes, growth factors, steroid receptors, and signal transduction in bacteria and yeast. Akbar, Colvin, James, Wince; F.

720 Molecular Biology (4)
Prereq: CHEM 590. Introduction to the basic concepts and techniques used in molecular biology. Topics include nucleic acid and chromatin structure, replication, recombination, the processes of transcription and translation and their regulation, plasmids, viruses, transposable elements, and techniques used in molecular biology. James, Kopchick, Showalter; W.

730 Molecular and Cellular Biology Laboratory (4)
Prereq: 720, 760, or PBIO 531. Exposes the MCB student to a wide variety of laboratory techniques used in the broad field of molecular and cellular biology by allowing the student to carry out these techniques in the laboratory. Showalter; Sp.

741 Seminar in Molecular and Cellular Biology (1)
Involves student presentation and discussion of seminars on topics of current interest in the area of molecular and cellular biology. F, W, Sp.

751 Topics in Molecular and Cellular Biology (2-6, max 12)
Designed for the presentation of significant current topics in molecular and cellular biology in response to specific student demand. D.

760 Advanced Cell Biology (4)
Prereq: CHEM 592. A discussion of current research directions in cell biology. Topics include, but are not limited to, protein transport and targeting, cell cycle, membrane transport and excitability, and cellular differentiation. Emphasis on current research directions of these topics. Horodyski; Sp.

Ohio Program of Intensive English

OPIE 565 is a service program for nonnative speakers whose proficiency in English is not adequate to permit them to enroll in an unrestricted program of academic courses.

Credit hours for the courses of this program are for visa validation and tuition assessment only and are not applicable to degree requirements.

Enrollment in OPIE 565 for 15 hours is for full-time intensive study of English as a second language beginning at the introductory, intermediate, or advanced level. Initial enrollment at the introductory level presumes continuation at the intermediate level for a total of 20 weeks of full-time intensive study. No credit courses may be taken concurrently with full-time intensive English. Enrollment in OPIE 565 for eight or 12 hours is for part-time semi-intensive supplemental study of English for students concurrently enrolled in a part-time program of degree credit courses.

OPIE 565 may include placement at any course level.

OPIE Courses (OPIE)

35 American English (1-15)
Semi-intensive or full-time classes in English as a second language arranged on an individual tutorial or class basis (if enrollment permits, as in the case of special or sponsored groups). Instruction in beginning listening and speaking skills along with appropriate communicative responses, with out-of-class exposure to native speakers in the form of field trips and daily situational encounters. Appropriate phrases and structures for daily use are introduced along with the basic cultural elements that make beginning communication possible. Students are familiarized with the basics of the English alphabet and handwriting. Beginning level sentence patterns are introduced as well as the rudiments of English punctuation. Basic English literacy skills are introduced with materials appropriate for adult learners.

40 American English (15)
Prereq: average TOEFL 350-399, placement test 45-50, composition test <25. Full-time study of English as second language for students at the elementary level whose ultimate aim is academic study. Twenty hours of classroom instruction are augmented with structured and independent use of listening, reading, and computer labs. Focus is on American English for effective communication both inside and outside the classroom. While grammatical structures and interactional listening and speaking skills are emphasized, reading and writing are gradually introduced along with study skills. Normally followed by 45.

45 Academic English (15)

Prereq: average TOEFL 400–450, placement test 51–65, composition test 25–34. Students at this level do not take academic courses. Full-time study of English as a second language for students aiming at academic study. Twenty hours of classroom instruction each week reinforced with access to listening, reading, and computer labs. Students develop fluency and accuracy in oral skills and pronunciation with focus on transactional activities and extended discourse. Paragraph-level writing competency is developed as students expand grammatical knowledge, explore the process of writing, and write longer pieces of text. Reading comprehension and vocabulary acquire greater emphasis with more attention to academic vocabulary and text organization. May follow 40.

50 Academic English (15)

Prereq: average TOEFL 450–500, placement test 65–70, composition test 35–44. Students at this level do not take academic courses. Full-time intensive study of English as a second language for students planning on academic study in an American university. Twenty hours of classroom instruction each week reinforced with access to listening, reading, and computer labs. Students incorporate understanding of grammatical structures, appropriate vocabulary, and organization into formally developed essays. More emphasis is placed on rhetorical modes and developing editing skills. Reading comprehension and lexical skill development are emphasized along with improvement of reading rate. Students learn to synthesize the various skills and strategies to which they have been exposed. Listening and speaking skill activities rely more heavily on academic task simulation and university-level expectations. Normally follows 45.

55 Academic English (12)

Prereq: average TOEFL above 500–525, composition test 45–50, or teacher recommendations. Part-time support courses in English as a second language for students permitted to take one academic course. Three hours of classroom instruction four days a week (normally a single two-hour course plus a third hour in the student's least developed skill area) with access to listening, reading, and computer labs. Students improve language skills as well as academic performance skills and study skills. Language focus is on reading and writing with additional work in academically related listening and speaking. Students may complete OPIE at this level or qualify for a higher part-time level.

60 Academic English (8)

Prereq: average TOEFL above 525–550, composition test 51–55 for undergraduate and low-language demand graduate students or 51–59 for high-language demand graduate students, or teacher recommendations. Part-time support course or courses in English as a second language for students permitted to take two academic courses. Two hours of classroom instruction four days a week (normally a single two-hour course) with access to listening, reading, and computer labs. Students continue high-level language skill development as well as academic performance skills and study skills. Language focus is on reading and writing with additional work in academically related listening and speaking. Students may complete OPIE at this level or qualify for a higher part-time level.

Philosophy

Only students who have earned at least a 3.0 (B) average in their undergraduate courses will be admitted unconditionally into the graduate program in philosophy. It is expected that you will have taken at least 28 quarter hours in philosophy. Students who have not had a course each in value theory, symbolic (predicate) logic, ancient philosophy, and modern philosophy must take courses in these areas during the first two quarters in residence or as soon as possible. Applications, along with transcripts, should be submitted to Graduate Student Services, and a sample of philosophical writing should be sent directly to the department graduate chair.

The Master of Arts in philosophy is granted upon the satisfaction of the following requirements:

1 Completion of 45 quarter hours in addition to any course taken to compensate for deficiencies in undergraduate preparation. At least 35 of these hours must derive from classroom courses at the 500-level or above. Independent or arranged studies such as PHIL 692 and PHIL 694, as well as PHIL 685, 690, and 693, do not count toward the 35 course hours. These hours must include at least one course from each of the following groups:

a 518 Plato, 519 Aristotle;

b 528 Continental Rationalism, 529 British Empiricism, 538 Kant

c 514 Analytic Philosophy, 544 Philosophy of Marxism, 548 Pragmatism, 558 Contemporary European Philosophy, 568 Phenomenology

d 530 Contemporary Ethical Theory, 531 History of Aesthetic Theory, 532 Problems in Aesthetics, 540 Contemporary Social Theory, 542 Philosophy of Law

e 516 Philosophy of Science, 517 Philosophy of Logic, 520 Symbolic Logic II, 550 Theory of Knowledge, 551 Metaphysics

2 Enrollment in 693 Seminar each fall and 685 Forum each winter and spring in residence.

3 Submission of an acceptable thesis on an approved topic, and an acceptable defense of it during an oral thesis examination.

Philosophy Courses (PHIL)

502 Techniques of Formal Analysis (5)

Philosophical application of techniques of modern symbolic logic. *F, W, Sp; Y.*

510 Emergence of a Science (4)

Prereq: 1 yr univ-level science. For both science and nonscience majors interested in historical and philosophical influences that led to present concept of chemistry as science. Chronological survey, largely nontechnical, of developments in chemistry from antiquity to present, combined with discussions of philosophers of science from Thales to Russell. *Pfeiffer, Zucker; Y.*

512 Philosophy of Biology (5)

Some specific questions to be addressed include: what are species; how best to do taxonomy; must any theory of evolution be holistic? *Zucker; A.*

513 Philosophy and Freudian Analysis (5)

Prereq: PSY 233 or 332. The philosophical and scientific presuppositions of Freudian psychology, including Freud's methodology, are identified and subjected to rigorous philosophical analysis. Freud's early thought on hysteria, dreams, sexuality, and psychoanalysis are emphasized. Recent attacks on the legitimacy of psychoanalysis are examined. Alternative schemes for understanding human behavior also discussed. *Zucker; D.*

514 Analytic Philosophy (5)

Selected topics in contemporary Anglo-American philosophy. *D.*

516 Philosophy of Science (5)

Analysis of selected problems in logic and methodology of sciences. *Zucker; Y.*

517 Philosophy of Logic (5)

Prereq: 320 or 502. Problems surrounding attempt to bring order into our account of logic; nature of propositions; logical form; proper names; fictional entities; ontological commitment; modality; etc. *D.*

518 Plato (5)

Carson; Y.

519 Aristotle (5)

Carson; Y.

520 Symbolic Logic II (5)

Prereq: 320 or 502 or major in math or computer science. Introduction to the theorems defining the scope and limits of formal methods that marked the coming of age of logic in the 20th century: Godel's completeness and incompleteness theorems for first- and second-order logic and the Church-Turing theorem on the undecidability of first-order logic. *Ehrlich.*

528 Continental Rationalism (5)

Descartes, Spinoza, Leibniz. Petrik; A.

529 British Empiricism (5)

Locke, Berkeley, Hume. A.

530 Contemporary Ethical Theory (5)

Current literature in selected topics in moral and social philosophy. *Trevas; A.*

531 History of Aesthetic Theory (5)

Readings from Plato to Dewey and relation of these theories to selected arts and recent criticism. *Bender; Blocker; Y.*

532 Problems in Aesthetics (5)

For students interested in the arts but not necessarily in issues primarily of interest to philosophers. Writing drawn from modern sources on theory of art, aesthetic criticism, creativity, truth in art, and aesthetic value. *Bender; Blocker; Y.*

538 Kant (5)

Kant's *Critique of Pure Reason* with attention given to his ethical theory. *Petrik; A.*

540 Contemporary Social Philosophy (5)

Consideration of any number of various issues in contemporary social, political, and legal philosophy. Possible topics: theories of distributive justice, culpability, causality and responsibility, legal and moral rights. *D*

542 Philosophy of Law (5)

Consideration of nature and justification of law and examination of some specialized topics in philosophy of law including ascription of responsibility, civil disobedience, theories of punishment, liberty, etc. *Y.*

543 Liability and Responsibility in the Law (5)

Prereq: 240, 330, 430, or 440. Study of some of major problematic areas in ascription of legal liability and responsibility. Chief areas of concern: (1) grounds on which courts determine who or what is causally responsible for what occurred; (2) extent to which finding of legal responsibility should take account of intentions, knowledge, recklessness, etc., of accused; and (3) whether only sane individuals should be held legally responsible. *Y.*

544 Philosophy of Marxism (5)

Philosophical inquiry into classical and contemporary Marxist thought stressing Marx, Engels, Lenin, Stalin, Mao, and several contemporary Marxists such as the "Praxis group" of Yugoslavia. *Borchert; Mickunas; A.*

548 Pragmatism (5)

Peirce, James, Dewey, and other American thinkers. *Trevas; D.*

550 Theory of Knowledge (5)

Critical examination of various views of what knowledge is and how it is attained. *Bender; Y.*

551 Metaphysics (5)

Basic alternative conceptions of world and such topics as substance, causality, self, freedom, space, and time. *Bender; Y.*

552 Myth and Symbolism (5)

Review of theories concerning nature of mythology and symbolic process. Analysis of selected myths and symbols in various religions, literature, and art. *Collins; Weckman; Y.*

553 Philosophy, Science, and World Views (5)

Transformation of ideas from one discipline to another, especially from philosophy to science and from science to generalized world-view. Emphasis on two case studies on moral and social views derived from Newtonian mechanism and Darwin's theory of evolution, with applications to recent religious and metaphysical implications drawn from new physics of Einstein and Heisenberg. *D.*

554 Semiotics in Communication (5)

Introduction to the structures and processes of communication through the use of semiotics. Semiotics is concerned with systems of signs, their interrelationships, and the images used to transmit such systems. Since semiotics is being used widely in the analysis of literature, film, and other social means of communication, the course would acquaint the student with current modes of understanding the communicative process. *Mickunas; Y.*

558 Contemporary European Philosophy (5)

Phenomenology and existentialism as seen in Husserl, Heidegger, Scheler, Hartman, Dilthey, Cassirer, Gebser, Ingarden, Sartre, Camus, Marcel, Merleau-Ponty, and Ricoeur. *Mickunas; Y.*

560 Contemporary Religious Thought (5)

Problem of God; relation of faith and reason, human destiny, religious language—in thought of representative theologians and philosophers such as Tillich and Buber. *D.*

568 Phenomenology (5)

Method and philosophy of phenomenological movement from Husserl to Merleau-Ponty. *Mickunas; Y.*

570 Hinduism (5)

Vedic religion, Hinduism, Jainism. *Collins; Weckman; Y.*

571 Buddhism (5)

Introduction to doctrines, origins, and varieties. *Collins; Weckman; Y.*

572 Islam (5)

Introduction to core ideas. *Weckman; Y.*

574 Taoism (5)

A historical survey of philosophical and religious Taoism from the third century B.C. to the 18th century. *Blocker; Y.*

575 Chinese Philosophy (5)

Major Chinese philosophers and schools of thought from earliest times to present day. *D.*

576 Indian Philosophy (5)

Classical Hinduism. *D.*

577 Buddhist Philosophy (5)

Abhidharma, Madhyamika, Yogacara, Zen, and other philosophical doctrines of Buddhism. *D.*

578 African Philosophy (5)

Critical examination of question, debated today among African philosophers, whether traditional African thought systems should be regarded and developed as philosophical systems, and survey of most significant of these thought systems. *Blocker; Mosley; Y.*

580 Thinking About Death (4)

Survey and analysis of human thought and practices regarding death. *Weckman; Y.*

591 Seminar in Philosophy (1–15, max 15)

Prereq: perm. Selected problems.

592 Applied Ethics (5)

Prereq: 2 courses from 130, 235, 330, 331, 430. An examination of the relationship of applied ethics to ethics as a branch of philosophy, as well as a survey of the major areas within applied ethics (medical, business, journalistic, etc.), and a consideration of selected problems in each. *Y.*

631 Art and Beauty in Antiquity and Middle Ages (4)

The study of the concepts of art, beauty, aesthetic experience, creativity, function of art, its value, and its relation to concepts of God and reality. Aesthetics as a way of self-understanding, influencing the lives and perceptions of the ancients and medievals. Not open to those who have had CA 741. *F; Y.*

685 Forum in Contemporary Philosophy (3)

Seminar required of all full-time graduate students to study the book to be discussed with the author during the spring quarter Philosophy Forum.W; *Y.*

690 Supervised Teaching (2)

Supervised experience, including observation, discussion, and counsel. *Y.*

691 Seminar in Philosophy (1–5, max 15)

Selected problems. *D.*

692 Special Studies (1–5, max 15)

Advanced specialized study in an area related to, but not necessarily that of, student's thesis. *Y.*

693 Seminar in Philosophy (1–3, max 6)

Seminar intended for all graduate students. *F; Y.*

694 Advanced Readings (1–15)

Supervised readings in specific areas beyond coursework. *D.*

695 Thesis (1–15)

Y.

696 Topics in Applied Ethics (5)

A seminar on selected topics in the area of applied ethics (medicine, journalism, computer, etc.). Each student writes a paper on the resolution of one such problem area. *Y.*

Physics and Astronomy

Graduate study and research leading to the Master of Arts, Master of Science, and Doctor of Philosophy are offered in physics. The principal research activities of the department extend over nuclear and particle physics, condensed matter and surface physics, acoustics, nonlinear dynamics (chaos), and astrophysics. Both experimental and theoretical studies are in progress in those areas. Special programs of graduate work outside these areas or fully interdisciplinary programs can, in appropriate cases, be devised to suit particular interests.

Students entering these degree programs are normally expected to have successfully concluded undergraduate work in mechanics, electricity and magnetism, thermodynamics, optics, atomic and nuclear physics, and quantum mechanics, and to possess a working knowledge of mathematics comprising calculus, Fourier series, vector analysis, and the elements of partial differential equations. It is recommended that applicants take the Graduate Record Examination, including the advanced test for physics. Deficiencies of undergraduate preparation should not deter a prospective student with an otherwise good record, as these may be made up during the first year of graduate study.

The program of study is developed for each student in close consultation with faculty advisors. The following core courses are recommended to all students in their first two years of graduate study: 551, 601, 605-606, 607-608, 611-612, 615-616, 623, and 735. Courses in related areas such as chemistry, engineering, mathematics, and computer science are often included in the program. Participation in the weekly colloquium, 891, is required of all graduate students.

The M.S. can be earned by submission of a research thesis with an oral examination and at least 20 credit hours of graduate level courses in physics or astronomy, other than research. It can also be obtained under a nonthesis option, which requires satisfactory completion of a work project (laboratory assignment, literature search, essay, etc., at two to six credits) and must include the courses 605-606, 607-608, 611-612, 615-616, and 623 or their equivalents.

The M.A. in physics is an option reserved for particular cases and may involve substantial work in other fields; candidates must follow an approved program filed with the physics graduate committee and submit a scholarly paper based on these studies for approval by at least two readers. For either the M.S. or M.A., a candidate is required to earn at least 45 graduate credits in physics and approved electives.

Students pursuing a Ph.D. in physics are required to pass certain courses (detailed below) with a B average, pass a Comprehensive Exam, present a colloquium, and have their dissertation prospectus approved by a dissertation committee before being admitted to candidacy. Continuation in the program thereafter is based on satisfactory progress in research and related matters. The award of the Ph.D. is based on successful defense of the dissertation in accordance with university requirements.

The program of courses which a student may take must be approved by his/her advisor. First- and second-year students have assigned advisors; upon passing the comprehensive exam, the student will choose a faculty advisor to begin research.

Required first-year courses are
Fall: 551, 605, 615
Winter: 606, 611, 616
Spring: 607, 612, 623

Required second-year courses are
Fall: 608, 726 or 731, 735
Winter: 601, 727 or 732 or ASTR 501 (503)
Spring: 728 or 733 or ASTR 502

Course requirements may be waived with adequate evidence of equivalent work elsewhere.

Students specializing in nuclear and particle physics must take the courses 726, 727, and 728; students specializing in condensed matter physics must take the course 731, 732, and 733; and students specializing in astrophysics must take the courses 501, 502, and 503. Students in other fields will be individually advised of the courses necessary for their chosen fields. In addition, each student is required to take one physics/astronomy course outside of his or her chosen area. This is to be chosen from the following list: 721, 726, 727, 728, 731, 732, 733, 553, 571, ASTR 501, 502, 503, or a suitable course agreed upon by the student's advisor and the graduate chair. This means, for example, that a student in nuclear physics may not satisfy this requirement by taking 726, 727, 728, or 553 since these courses are within the nuclear physics area. Also, it is normal for students to take other courses as recommended by their advisors, but these will not be required for admission to candidacy.

The comprehensive exam consists of two parts: written and oral. The written exam is normally given at the beginning of fall and winter quarters and is based on first-year graduate-level topics taken from classical mechanics, electricity and magnetism, quantum physics, thermodynamics, statistical mechanics, special relativity, and mathematical physics. Well prepared incoming students may choose to take the exam in their first year, either upon entry in the fall or at the beginning of the first winter quarter. An unsuccessful attempt in the first year will not adversely affect the student's record. At the beginning of the fall quarter of the second year, all students must take the exam if they have not already passed it.

After passing the written exam in September or January, students take an oral exam normally given in May. This consists of a presentation before a faculty committee on a research topic chosen in consultation with the student's prospective research advisor. Students must be prepared to answer questions concerning this topic and other topics related to graduate-level study of physics.

After passing both parts of the comprehensive exam, students, in consultation with their advisor, form a dissertation committee. Students must prepare a dissertation prospectus for approval by this committee by the beginning of the winter quarter after they pass the comprehensive exam. The prospectus is a written document, typically 5-10 pages, which outlines the student's plan for dissertation research. The format of this document usually follows the form of a typical journal article, with an abstract, introduction, and description of the research plan. If the plans for the student's dissertation change substantially from the prospectus, the student's dissertation committee should be informed.

The remainder of the Ph.D. program consists of research and other studies relevant to the dissertation. The Ph.D. is awarded after successful defense of the dissertation before the dissertation committee.

There are no specific deadlines, but most applications for financial aid are received by March 1 and most offers are made by April 15. Most students enter the physics program in the fall; although some add the preceding summer session. Entry during the academic year is possible but not encouraged. For details concerning graduate programs, write to the physics graduate committee.

Astronomy Courses (ASTR)

501 Stellar Astrophysics (3)

The physics of stellar atmospheres and interiors. Mathematical treatments of radiative transfer, hydrodynamics, and stellar structure; stellar atmospheres and spectra; stellar interiors; and nuclear energy sources. Stellar evolution, red giant stars, pulsating variables; physics of degenerate gases, white dwarfs, neutron stars, pulsars, black holes.

502 Galactic and Interstellar Astrophysics (3)

Structure and evolution of the Milky Way galaxy and the interstellar medium. Stellar populations and orbits of stars in the galaxy; galactic dynamics, evolution of the galactic disk and star clusters. Physics of the interstellar gas, absorption and emission processes, HI and HII regions, molecular clouds. Hydrodynamic instabilities, star formation; supernova explosions and shockwaves.

503 Extragalactic Astrophysics and Cosmology (3)

Physics of galaxies and evolution of the universe. Dynamics of galaxy structure, formation, and interaction. Dark matter. Active galactic nuclei, radio galaxies, and quasars. Galaxy clusters and large-scale structure. Cosmological distance measurements, expansion of the universe. Introduction to general relativity; cosmological models, observational tests, cosmic microwave background. Primordial nucleosynthesis.

510 Observational Astrophysics (3)

Modern observational techniques and instrumentation; optical design of telescopes, cameras, and spectrographs; use of CCD detectors, radio telescopes and receivers; interferometry; space observatories; data acquisition and reduction strategies; statistical methods.

Physics Courses (PHYS)

503 Digital Computing Methods in Physics (5)
Practical computer programming (FORTRAN, etc.) with special emphasis on problems in physics.

505 Mechanics (3–5)

Prereq: degree in area outside physics. For students with graduate rank, especially in multidisciplinary programs, whose preparation does not include equiv of 311.

506 Mechanics (3–5)

Prereq: degree in area outside physics. For students with graduate rank, especially in multidisciplinary programs, whose preparation does not include equiv of 312.

507 Electricity and Magnetism (3–5)

Prereq: degree in area outside physics. For students with graduate rank, especially in multidisciplinary programs, whose preparation does not include equiv of 427.

508 Electricity and Magnetism (3–5)

Prereq: degree in area outside physics. For students with graduate rank, especially in multidisciplinary programs, whose preparation does not include equiv of 428.

511 Thermodynamics (4)

First and second laws of thermodynamics, phase changes, and entropy. Temperature, thermodynamic variables, equations of state, heat engines. 3 lec, 1 rec, problems.

512 Kinetic Theory and Statistical Mechanics (4)

Kinetic theory, transport phenomena, and introduction to classical and quantum statistics. 3 lec, 1 rec, problems.

520 Acoustics (3)

Vibration, sound radiation, sound propagation, and practical aspects of sound. 3 lec. A-odd.

523 Geometrical and Physical Optics (4)

Reflection, refraction, lenses, polarization, birefringence, interference, diffraction, coherence, and selected introductory topics in modern optics. 4 lec, problems.

529 Topics in Science for Elementary and Secondary Schools (1–5)

Selected topics related to the teaching of natural science in grades K–12. May be repeated for credit. May not be used for credit toward a physics degree.

531 Electronics Laboratory (3)

Experiments in electronic measurement techniques from simple AC and digital circuits to microprocessors and analyzers. 6 lab.

551 Quantum Physics (4)

Classical background, observables and operators, representations, symmetry and conservation laws, one- and two-dimensional problems, philosophical issues, quantum paradoxes. 4 lec, problems.

553 Nuclear and Particle Physics (4)

Descriptive treatment of nuclear phenomena. Elementary theory of nucleon-nucleon interaction. Systematics of nuclear structure (shell model and collective model). Properties and interactions of fundamental particles. Devices and techniques of nuclear and high energy physics. 3 lec, problems.

571 Solid State Physics (4)

Fundamental properties of solid state of matter. 3 lec, problems.

601 Graduate Laboratory (1–4)

Selected experiments from all areas of physics requiring accurate measurements with refined apparatus.

604 Experimental Techniques (1–5)

Laboratory in experimental safety and skills including machining, electronic projects, and experimental design.

605 Classical Mechanics (5)

Basic analytical techniques for point mass systems and rigid bodies in traditional and contemporary perspective; mathematical complements. 3 lec, intensive problems.

606 Classical Mechanics (5)

Continuation of 605. See 605 for description. 3 lec, intensive problems.

607 Electrodynamics (5)

Deductive development from Maxwell's equations, including recent advances; special theory of relativity and applications to charged particle problems; mathematical complements. 3 lec, intensive problems.

608 Electrodynamics (5)

Continuation of 607. See 607 for description. 3 lec, intensive problems.

609 Electrodynamics (5)

Continuation of 607–608. See 607 for description. 3 lec, intensive problems.

611 Quantum Mechanics (5)

Brief review of Schrodinger equation; elements of scattering theory, phase shift analysis, and Born approximation; operators, matrices, angular momentum, and spin; basic semi-classical, perturbation, and variational techniques; exchange and symmetry effects; atomic spectra and electromagnetic transitions; diverse applications; introduction to second quantization; mathematical complements. 3 lec, intensive problems.

612 Quantum Mechanics (5)

Continuation of 611. See 611 for description. 3 lec, intensive problems.

613 Mathematical Physics Practicum (2)

Selected mathematical techniques important to physicists.

615 Mathematical Methods in Physics (5)

Contemporary and classical mathematics to complement basic graduate courses, particularly linear algebra, complex analysis, variational methods, generalized functions, differential and integral operators, and varied applications. 3 lec, intensive problems.

616 Mathematical Methods in Physics (5)

Continuation of 615. See 615 for description. 3 lec, intensive problems.

617 Methods of Theoretical Physics (5)

Selected advanced mathematical and computational methods employed in theoretical physics.

623 Statistical Mechanics (5)

Review of ensembles, noninteracting classical, Fermi, and Bose systems, theory of phase transitions, and introduction to renormalization group methods, Monte Carlo techniques, classical theory of fluids, and a brief introduction to nonequilibrium statistical mechanics. 4 lec, intensive problems.

650 General Relativity (5)

Introduction to general relativity. Einstein's field equations, gravitational waves, singular solutions, elements of relativistic cosmology. 4 lec.

695 Thesis (as recommended by dept)

696 Special Study (1–15)

Supervised individual study at beginning grad level. Can be used for writing M.S. or M.A. paper.

721 Physical Acoustics (4)

General principles of interactions of sound with matter; thermoacoustics. 3 lec, problems.

726 Particles and Nuclei (4)

Experimental and basic theoretical aspects of elementary particles and nuclei and their interactions. Elements of nuclear structure and nuclear reactions. 3 lec, problems.

727 Particles and Nuclei (4)

Continuation of 726. See 726 for description. 3 lec, problems.

72B Particles and Nuclei (4)

Properties and interactions of subnuclear particles. The static quark model. Experimental basis of the Standard Model of particles and their interactions including electroweak and quantum chromodynamics. 3 lec, problems.

731 Condensed Matter Physics (4)

Structure, dynamics, electronic, thermal, transport and materials properties, and collective phenomena (magnetism, superconductivity, superfluidity, patterning) in bulk and surface condensed matter systems. 3 lec, problems.

732 Condensed Matter Physics (4)

Continuation of 731. See 731 for description. 3 lec, problems.

733 Condensed Matter Physics (4)

Continuation of 731–732. See 731 for description. 3 lec, problems.

735 Relativistic Quantum Theory (4)

Advanced problems in nonrelativistic quantum mechanics. Relativistic quantum mechanics: Dirac and Klein Gordon equations. Second quantization: diagrammatic techniques, applications. 3 lec, problems. F; Y.

736 Quantum Many-Body Theory (4)

Basic techniques of quantum many-body theory; applications. 3 lec, problems.

737 Quantum Field Theory (3)

Basic quantum field theory: quantum electrodynamics, introduction to gauge fields. 3 lec. 5p; A.

741 Statistical Mechanics and Thermodynamics (2-4)

Selected topics.

742 Statistical Mechanics and Thermodynamics (2-4)

Continuation of 741. See 741 for description.

744 Methods in Condensed Matter Theory (3)

Selected topics in modern quantum methods applied to condensed matter systems. Examples: density functional, ab initio molecular dynamics, thermal Green functions, Monte Carlo, with applications to superconductivity, liquids, glasses, surface phenomena, etc. 3 lec.

751 Particle Theory (3)

Theoretical formulations and current questions regarding nature of, and interactions between, subnuclear particles. 3 lec.

755 Nuclear Theory (3)

Theory of nuclear reactions and nuclear models. 3 lec.

871 Advanced Quantum Theory (3)

Selected topics. 3 lec.

875 Advanced Nuclear Theory (3)

Selected topics of current interest. 3 lec.

877 Advanced Condensed Matter Theory (3)

Selected topics of current interest. 3 lec.

891 Colloquium (1)

Selected topics of current interest. Required of all graduate students.

893 Seminar (1-4)

Thorough study of important area. Experimental techniques, classic experiments, and statistical methods discussed.

894 Special Topics (1-4)

Lectures on special topics such as optical physics, continuum mechanics, advanced quantum theory, or other subjects not specified under regular course headings.

895 Doctoral Research and Dissertation (as recommended by dept)**896 Special Study (1-15)**

Supervised individual study in preparation for research.

897 Research Seminar (1-4)

Intensive study of selected subjects by special groups: (A) nuclei and particles, (B) high energy, (C) acoustics, (D) condensed matter and surface science, (E) theoretical, (F) astrophysics.

899 Problems in College Teaching (1-3)

For all graduate students assigned to teaching duties.

Political Science

The Department of Political Science offers two graduate degrees: the Master of Arts in political science and the Master of Public Administration.

To begin work on either degree, you should have the equivalent of 27 hours of undergraduate work in political science and/or public administration,

but applications are also considered from persons with academic backgrounds in closely related areas or with relevant practical experience, especially for admission to the M.P.A. program.

Master of Arts

The M.A. program encompasses five subfields of political science: American politics, comparative politics, international relations, political theory, and public policy and administration.

General requirements are a minimum of 50 quarter hours of graduate work, of which at least half must be in your subfield specialization. In addition, you must complete 600 and either 581 or 582, the required graduate seminars in your subfield specialization, and one seminar outside your subfield specialization.

You may choose either a thesis or a nonthesis option. The requirements for the thesis option include the submission of a master's thesis to a committee of three faculty members and an oral defense of the thesis. The requirements for the non-thesis option include the submission of two approved research papers (starred papers) to a committee of three faculty members as well as a written comprehensive examination. The written examination covers your starred papers and a reading list compiled by your committee. A complete description of requirements for the M.A. is available in the department office.

For admission to the M.A. program, you must submit the application form together with transcripts of previous academic work, three letters of recommendation, and Graduate Record Exam scores. You should plan to begin coursework fall quarter; exceptions are made only with the approval of the graduate chair.

Master of Public Administration

The M.P.A. is a specialized, professionally oriented interdisciplinary degree. It requires 70 hours of graduate work in public policy and administration, including an administrative internship or equivalent experience. Requirements include the submission of a policy project paper to a committee of three public administration faculty members.

Detailed program requirements are available in the department office.

To apply to the M.P.A. program, submit the application form together with transcripts of previous academic work, three letters of recommendation, and either Graduate Record Exam or Graduate Management Admissions Test scores. You may begin coursework during any quarter of the academic year, but fall quarter is preferred.

Financial Aid

A number of graduate associateships are available to qualified applicants in both degree programs. Graduate associates in the M.A. program are normally expected to assist faculty members in the instruction of introductory courses or in their research. Graduate associates in the M.P.A. program are normally expected to assist the Institute for Local Government Administration and Rural Development. Tuition scholarships are available to all graduate associates and a limited number of other students in both programs. To seek financial aid for the following academic year, fill out the appropriate section of the application and submit all application materials by March 1.

The Department of Political Science works closely with several interdisciplinary programs, including the Center for International Studies, Contemporary History Institute, Women's Studies Program, Environmental Studies Program, and the Center for Public and Environmental Affairs.

Political Science Courses (POLS)**501 American Constitutional Law (5)**

Principles underlying American constitutional government. Consideration of leading cases with reference to interpretation of the U.S. Constitution. *Gilliom*.

502 American Constitutional Law (5)

Continuation of 501. See 501 for description. *Gilliom*.

504 Civil Liberties (5)

Examination of selected civil liberties issues such as freedom of expression, freedom of religion, equality, rights of criminally accused, and rights of indigent. *Henderson*.

505 American Political Parties (5)

Origin, growth, organization, and methods of parties. Suffrage, nominations, and elections. Role of parties in democracy. *Prisley*.

506 Elections and Campaigns (5)

Examines nature of voter and rationality of voter decisions, impact of campaigns and their influence on election outcomes, techniques used in political campaigns, and role of elections in American society.

508 Urban Public Administration (5)

Examines administration of urban programs, encounters between urban administration and program clientele. Focuses on agency-client relationships, professionalism, and public service. *Randolph*.

509 Criminal Procedure (5)

Role, function, and problems of American judicial, prosecutory, policing, and correctional systems in political process. Relationship of law and social organization. *Eslocker*.

510 Public Policy Analysis (5)

Examines stages of policy process, including policy formulation, implementation, and evaluation. Also discusses development and methods of policy analysis. *Mumper, Randolph*.

511 Public Administration (5)

Development of administrative organizations, current ideas in organizational theory, nature of federal bureaucracy, fiscal management, and control of administrative action. *Manring, Mumper*.

512 Public Personnel Administration (5)

Analysis of philosophy, problems, and procedures of public personnel management. Recruitment, training and promotion policies, position classification, and employer-employee relations.

513 Administrative Law (5)

Organization, function, and procedures of selected national regulatory agencies. Principles affecting administrative discretion, administrative power over private rights, enforcement, and judicial control of administrative decisions.

514 Organizational Theory and Politics (5)

Examination of central role of organizations in public life, presenting major theories of organizations, organizational behavior, and the individual's role in organization. *Burnier*.

515 The American Presidency (5)

Analysis of office of national chief executive and its place in American political system: constitutional status and powers, functional development, and interrelationship of person and office. *Mumper*.

517 Legislative Processes (5)

Examines the behavior of legislatures and legislators, the extent of their powers, and the tension between lawmaking and representation, concentrating primarily on the current era and the national level. *Richard, Tadlock*.

518 Interest Groups in American Politics (5)

Organization and tactics of pressure groups and their impact on the policy-making process. *Burnier*.

519 Gay and Lesbian Politics (5)

Explores emergence and ramifications of gay political activism in Western culture. Changing religious, psychological, legal, and political perceptions of homosexuality examined in historical perspective. *Hunt*.

520 Women, Law, and Politics (5)

Focuses on political and legal position of women in U.S. Covers women's legal status, feminist movement, current issues, and public policy responses concerning women's position such as Equal Rights Amendment, marriage and divorce laws, affirmative action, abortion, and pay equity.

524 Intergovernmental Relations in the U.S. (5)

Examines intergovernmental fiscal patterns among federal, state, and local governments and impact of fiscal transfers on local budgeting and finance administration. Also includes analysis of nonfiscal patterns such as federal program requirements, their impact on local administrative processes, and other pressures on local budgeting and finance. *Burnier*.

525 Environmental and Natural Resources Politics (5)

Examines history, influence, and tactics of the U.S. environmental movement and the nature of conflict in environmental policy making at the local, state, and national levels. Emphasis on current environmental issues including air pollution, waste disposal, and use of public land. *Manring*.

526 Politics of the Contemporary Environmental Movement (5)

Examination of the major segments of the contemporary U.S. environmental movement. Topics include the professionalization, activities, strategies, and criticisms of the mainstream environmental groups; radical environmentalism; grassroots environmentalism and the role of gender; environmental justice and the role of race; and the political implications of this diversity.

527 Formulation of American Foreign Policy (5)

Examines the domestic basis of United States foreign policy. Assesses how the foreign policy-making system operates within the Constitutional context. Considers the role of various governmental institutions, as well as the influence of public opinion, interest groups, and media in the foreign policy-making process. *Molineu*.

529 Comparative Public Administration (5)

Examines and compares characteristics of comparative public administrative systems in various national settings. *Williams*.

532 Policy Making in Russia (5)

Examines how Russian leadership deals with a number of major domestic problems. *Williams*.

533 Russian Foreign Policy (5)

Analysis of foreign policies of Russia. Historical, ideological, strategic, and other influences. *Williams*.

534 Government and Politics of Latin America (5)

Political systems of Latin America. Emphasis on power relationships and political obstacles to change in contemporary Latin America. *Walker*.

535 Revolution in Latin America (5)

Revolution as theoretical concept and as practical reality in several Latin American countries. Special emphasis on Cuban and Nicaraguan revolutions. *Walker*.

538 Government and Politics of Germany (5)

Analysis of political institutions, processes, and forces in contemporary Germany. *Bald*.

539 Politics in France (5)

Major political processes, personalities, ideas, and institutions of modern France.

540 The Politics of Developing Areas (5)

Major theories and problems of political, socio-cultural, and economic development in new nations of Asia, Africa, and Latin America, with special emphasis on heritage of colonialism, struggle for independence, and political adjustments to rapid social and technological change. *Abinales, Aubrey*.

541 African Politics (5)

Development and structure of modern African states with emphasis on political processes in tropical Africa. *Aubrey*.

542 Middle East Politics (5)

Major issues and concepts relating to contemporary Middle East politics: the Arab-Israeli conflict, Islamic political movements, Persian Gulf security and oil, and the role of women in Middle Eastern society. *Nojeim*.

545 Government and Politics of Japan (5)

Political institutions and processes of Japan with emphasis on developments since 1945. *Suzuki*.

546 Government and Politics of China (5)

Political institutions and processes and major political developments in China, with emphasis on recent events.

547A Government and Politics of Southeast Asia (5)

Traditional governments in southeast Asia, Western colonialism, rise of nationalism, achievement of independence.

547B Government and Politics of Southeast Asia (5)

Deals with political developments in states of Southeast Asia in post-WWII period. Sequel to 547A; 547A is not a prerequisite.

555 International Law (5)

International law in interstate relations and in international organization. *Kim*.

556 International Organization (5)

Nature, development, structure, and function of international organizations, with emphasis on United Nations. *Kim*.

559 Arms Control and Disarmament (5)

Examines military force in nuclear age with special emphasis on strategy of nuclear deterrence, history of disarmament negotiations since WWII, arms control agreements, and case studies in current U.S.-Soviet arms control negotiations. *Bald*.

563 The United States and Africa (5)

Origins and nature of American relations with African states, with emphasis on current American interests and policy. *Aubrey*.

564 OAU and Africa (5)

An examination of the Organization of African Unity, its actions on various issues of interest to Africa, and the foreign policies of selected African states. The culmination of the course is participation in the annual model OAU meeting in Washington, D.C. *Aubrey*.

571 Plato, Aristotle, and Premodern Political Thought (5)

Major figures and basic concepts characteristic of political thought in its ancient and medieval periods. Emphasis on original works of Plato, Aristotle, St. Augustine, St. Aquinas, and on developing one's own political values and theories. *White*.

572 Modern Political Thought (5)

Basic philosophic conceptions of modern nation state. Using original works, evolution of nation state traced through philosophical literature from its Renaissance origins. Attention on both formative and critical perspectives, such as Machiavelli, Rousseau, and Emma Goldman, with emphasis upon evaluation of norms associated with modern state. *Henderson, Hunt, White*.

573 Contemporary Political Thought (5)

Nineteenth- and twentieth-century political theory. Focus on such contemporary philosophical and political issues as emergence of European socialist tradition, origins of human aggression, and human alienation. Attention given to selected theorists such as Marx, Freud, Gandhi, and Sartre. *Henderson, Hunt, White.*

576A American Political Thought (5)

Considers origin and development of political ideas from colonial period through slave controversy. *Prisley.*

576B American Political Thought (5)

Continuation of 576A. Begins with Social Darwinism and concludes with contemporary political ideas in America. Can be taken independently of 576A. *Prisley.*

577 Legal Theory and Social Problems (5)

Examination of legal reasoning and normative values of judges, lawyers, legal theorists, and administrative agencies in shaping legal solutions to contemporary social problems. Emphasis on developing one's own political and legal values. *Henderson.*

578 Feminist Political Theories and Movements (5)

Explores issues of power, powerlessness, oppression, and transcending oppression in the context of feminism as a human rights movement. Topics include origins and history of sexism and feminism, classic treatises of feminist political theory, contemporary theories from conservative to anarchist, visions of post-sexist futures, "her-story" of feminist movements, movement strategies and tactics, practical applications. *White.*

579 Latin American Political Thought (5)

Evolution of Latin American political thought from conquest to present. Major emphasis on 20th century movements such as Democratic Left, progressive Catholic Left, and Marxist Revolutionary Left. *Walker.*

581 Modern Political Analysis (5)

Problems of knowledge in social sciences, with emphasis on political science. Analysis of recent major theories or approaches in political science. *Dabelko.*

582 Quantitative Political Analysis (5)

Relevance of scientific research techniques to study of politics. *Dabelko.*

583 Statistical Package for Social Sciences (5)

Prereq: 582 or equiv. Use of microcomputers with SPSS/PC+ for statistical data analysis. Fundamental data analysis problems are examined in the context of computer applications to survey, aggregate, and experimental data. Students taking this course cannot receive credit for CS 522 or SOC 550. *Dabelko.*

584 Management Skills for Public Administrators (5)

Practicum designed to introduce students to several management skills needed for success in public administration and to permit them to apply these skills in a classroom setting. *Baum.*

586 Public Budgeting (5)

Examines politics, techniques, and policy consequences of public budgeting processes at federal, state, and local levels. *Weinberg.*

587 Financial Management in Government (5)

Examines financial aspects of state and local governments. Concentrates on financial reporting, capital budgeting and debt, and investment strategies. *Weinberg.*

588 Public Dispute Resolution (5)

An introduction to the field of alternative dispute resolution. The course examines the dynamics and management of public disputes over issues such as the site selection of waste management facilities, prisons, low income housing, the use of natural resources, and the allocation of community financial resources. Students learn how to analyze public disputes, evaluate conflict management approaches, and practice conflict management skills and techniques including conflict assessment, negotiation, and mediation.

590 Studies in Political Science (1-5)

Intensive study of special topics, including American government, international relations, political theory, and public administration.

591 Research in Political Science (1-5, max 10)

Individual supervised research.

592A Research in International Relations (1-5)

Individual supervised research or directed readings on selected aspects of international relations based on student's special interest. *Bald, Kim, Molineu, Weitsman.*

592B Research in American Politics (1-5)

Individual supervised research or directed readings on selected aspects of American government and politics based on student's special interest. *Burnier, Dabelko, Gilliom, Mumper, Prisley, Richard.*

592C Research in Comparative Government (1-5)

Individual supervised research or directed readings on selected aspects of comparative government and politics based on student's special interest. *Aubrey, Baum, Suzuki, Walker, Williams.*

592D Research in Public Administration (1-5)

Individual supervised research or directed readings on selected aspects of public administration based on student's special interest. *Baum, Burnier, Mumper, Randolph, Weinberg.*

592E Research in Political Theory (1-5)

Individual supervised research or directed readings on selected aspects of political theory based on student's special interest. *Henderson, Hunt, White.*

595 Internship Program (max 15)

600 Scope and Theory in Political Science (5)
Acquaints graduate students with the field of political science and is organized around issues in the philosophy of social science. Provides students with the tools to frame research questions within the field of political science and to go about answering them. *White.*

610 Seminar in American National Government (5)

Selected topics.

630 Seminar in Comparative Politics (5, max 15)

Selected topics.

648 Politics of Southeast Asia (5)

Analysis of major themes such as boundary problems, corruption, military, regional cooperation.

650 Seminar in International Relations and Organization (5)

Selected topics and theoretical issues.

652 Research Seminar in International Relations (5)

Selected topics and theoretical issues for research in International Relations.

670 Seminar in Political Theory (5)

Selected topics.

675 20th-Century Political Thought (5)

Focuses on the differences between modern and postmodern discourse, an overview of critical theory versus postmodernism, and an assessment of the contributions of 20th-century political philosophy to an understanding of human emancipation. *Hunt, White.*

680 Seminar in Public Administration (5)**695 Thesis (1-10)**

Psychology

The Department of Psychology offers doctoral programs in clinical, experimental, and industrial/organizational psychology. The clinical program is accredited by the American Psychological Association (APA) and is based on the scientist-practitioner model of training. All doctoral programs offer the master's degree as a step toward the Ph.D. and require a research thesis for the master's degree. For the Ph.D., you must satisfactorily complete a comprehensive examination, a scholarly tool, and a research dissertation. A one-year internship at an APA-accredited facility is also required for the clinical Ph.D. All doctoral candidates are required to do teaching, professional, or clinical work under supervision, the specific amount to be determined by past experience and needs, but not less than the equivalent of three academic quarters of work.

When you apply for graduate study, you are expected to have completed a minimum of 27 quarter hours of undergraduate psychology, including a course in statistics and one in experimental psychology. You must submit scores on the Graduate Record Examination (including the general test and the subject test in psychology), transcripts of all academic work, three letters of recommendation from psychologists, and a statement of your personal goals and interests. You also must have a minimum overall undergraduate average of 3.0 (on a 4.0 scale). If you apply for the doctoral program with a master's degree from another university, you must have a minimum graduate average of 3.4.

The department strongly encourages you to begin your graduate program in the fall quarter. Application materials must be received by January 15.

Psychology Courses (PSY)

520 Elementary Statistics (5)

First statistics course for graduate students who have not had such an undergraduate course. (Does not carry degree credit. Not open to students who have had PSY 221.)

525 Elementary Experimental Psychology (5)

First course in designing experiments for graduate students who did not have such an undergraduate course. (Does not carry degree credit. Not open to students who have had PSY 226.)

541 Behavioral Measurement (4)

Prereq: 520 or EDRE 720 or equiv. Testing and measurement; basic criteria including objectivity, reliability, validity. Methods of test construction and validation for students who have not had such an undergraduate course. (Does not carry degree credit. Not open to those who have had PSY 341.)

588 Clinical Orientation (1)

Orientation to research, training, and practice issues in clinical psychology for first-year clinical graduate students.

590 Readings in Psychology (1–5, max 20)

To broaden training of master's or doctoral students in areas in which they need further work that cannot be obtained through specific courses.

592 Preparing Psychology Papers (2)

Preparation of professional papers in psychology; application of technical style principles to experimental papers and psychological reports. Tasks include writing and rewriting psychological information aimed at an informed reader and reviewing psychological writings that illustrate both correct and incorrect psychological style.

621 Intermediate Statistics for Behavioral Sciences (5)

Statistical inference and most commonly used tests of hypotheses involving normal curves, *t* test, chi-square, and *F* distributions; introduction to probabilistic classification and Bayesian statistics.

622 Intermediate Correlation and Regression (4)

Prereq: 621. Two-variable correlation and regression, partial and multiple correlation, and nonlinear relationships.

623 Design and Analysis of Experiments (5)

Prereq: 622 or EDRE 721. Independent groups, repeated measures, and mixed analysis of variance designs. Matching statistical analyses to experimental procedures.

626 Advanced Experimental Psychology (3)

Prereq: 621. Experimental design and techniques. Individual experiments.

633 Psychology of Personality (4)

Development and organization of personality; evaluation of major theoretical viewpoints; relationship of personality theories to various psychotherapy approaches.

637A Clinical Psychopathology (3)

Survey of theoretical and empirical literature on abnormal behavior. Emphasis on concepts and principles of disorder.

637C Psychopathology of Childhood (3)

Characteristics, correlates, and etiology of childhood disorders including pervasive developmental disorders, schizophrenia, anxiety disorders, depression, conduct disorder, attention deficit hyperactivity disorder, eating disorders, learning disorders, and mental retardation.

640 Clinical Skills (4)

Supervised practice in clinical skills relevant to assessment interviewing and psychotherapy, differential application of a variety of clinical interventions to meet specific goals of the interview, diagnostic decision-making, illustrations of advantages and disadvantages of techniques in context.

641 Individual Intelligence Testing (4)

Prereq: 637A or concurrent. Overview of theories of intelligence and issues relevant to the assessment of intellectual functioning; supervised practice in administration, scoring, and interpretation of selected tests of intelligence for both adults and children; combination of information about cognitive functioning obtained from standardized tests with other information (e.g., interview) in the writing of integrative psychological assessments.

642 Personality Assessment I (4)

Prereq: 633, 637A, 640 or concurrent. Introduction to both objective and projective personality assessment with focus on basics of personality assessment; psychometric properties of tests and criteria for selecting among tests; and practical experience in administration, scoring, and interpretation of test results and report writing.

643 Personality Assessment II (1–5)

Prereq: 642. Advanced topics in personality assessment including integrating results from various tests, integrative report writing, and assessment-treatment linkage. Practical experience completing psychological batteries in clinical settings.

644 Behavioral Assessment (1–5)

Prereq: 637A. Theory and practice associated with behavioral assessment. The use of direct observation methods and self-report scaling highlighted. Integrates behavioral assessment methods with clinical practice.

645 Clinical Assessment of Children and Adolescents (4)

Prereq: 637C, 641, 642. Administration, scoring, and interpretation of major intellectual and personality tests used with children and adolescents; diagnostic interviewing techniques with children; assessment of special problems; integrative report writing.

649 Assessment Practicum (1–5)

Supervised clinical experience in selected aspects of psychological assessment such as intelligence testing and personality assessment.

650 Treatment Survey (1–5)

Prereq: 637A. Basic treatment issues and approaches relevant to clinical psychology with emphasis on major schools of psychotherapy and short-term intervention approaches. Examination of appropriate assessment and methodological considerations associated with treatment.

674 Psychological Aspects of Aging (4)

Current theory and research on the changes and consistencies in behavior related to aging, including learning, memory, personality, motivation, interpersonal perception, and adaptation to change; implications of research findings for the daily functioning of the older person.

680 Health Psychology (4)

Overview of theory and research in health psychology; psychological factors in such disorders as hypertension, coronary artery disease, headache, chronic pain, asthma, and immune disorders; applications and effectiveness of psychological interventions.

68B Issues in Professional Psychology (3)

Prereq: grad in psychology. Examines educational, ethical, and professional issues associated with the field of clinical psychology.

693 Seminar in Teaching of Psychology (2)

Issues in and approaches to teaching in the field of psychology. Includes such topics as characteristics of good classes and teachers, syllabus preparation, lecture and discussion techniques, exam preparation, and grading. Includes experiences with feedback.

695 Thesis (1–10)

701 Experimental Sensory Psychology (5)

Prereq: 712. Analysis of classical sensory systems (vision, audition, olfaction, somatic, regulatory, etc.) and their contributions to various behaviors.

703 Advanced Learning (5)

Lectures and readings covering theoretical works in field of learning.

704 Cognitive Processes (5)

Theory and research in human cognitive processes such as attention, memory, knowledge structures, language, reasoning, problem solving, and judgment and decision making.

706 Psychology of Communication (4)

Application of communication theory, psycholinguistic principles and readability measurement to process of communication, with emphasis on written communication.

707 Psycholinguistics (4)

How people produce, understand, and acquire language within framework of major psychological and linguistic theories of language. Emphasis on user of language rather than on language.

708 Psychology of Judgment and Prediction (5)

Examines normative and descriptive models of human judgment with emphasis on clinical judgment and prediction. Bias, diagnosis, selective information usage, and intuition also included.

710 Motivation (5)

Dynamics of motivation including treatment of traditional theories, as well as achievement and cognitive motivational theories.

712 Physiological Psychology (5)

Biological basis of behaviors with emphasis on central nervous system and neurological disorders.

714 Comparative Psychology (5)

Behavior of lower and higher organisms leading up to humans.

715 Psychology of Human Differences (5)

Methodology, basic principles, and general findings in individual differences in intelligence, personality, interests, and perception; group differences by sex, age, race, and socioeconomic class.

718 History and Systems of Psychology (5)

Historical review of major systematic position in psychology since the 18th century. Philosophy of science for psychology, including issues in theory construction and evaluation, consciousness, and reductionism.

727 Psychophysiology (4)

Human psychophysiology.

728 Applied Psychophysiology (4)

Prereq: 727. Theory and research on the application of psychophysiological procedures to assessment and intervention in behavior therapy and behavioral medicine.

735 Experimental Social Psychology (5)

Major theoretical and research trends with emphasis on attitudes, social perception, and small-group behavior.

736 Advanced Social Psychology (5)

Major research and theoretical trends in social psychology; observational learning and social motivation.

748A,B,C,D Neuropsychology (1-5)

Prereq: 637A. Didactic training in structure of central nervous system, types of organic disorders, and diagnosis of neurological disorders. Topics include neuroanatomy and functional approaches to spinal cord, brain stem, cerebral hemispheres, cortex, subcortex, limbic system, and cerebellar hemispheres. Brain-behavior and endocrine relationships are also reviewed. Clinical case material is presented.

750A,B,P Individual Psychotherapy (1-5)

Prereq: 637A. Theory, research, and practice of individual approaches to psychotherapy with adults; emphasis on brief and empirically supported therapies. Practicum involves supervised psychotherapy work with a client.

751A,B,P Behavior Therapy (1-5)

Prereq: 637A. Integrated treatment sequence in behavior therapy. Theoretical, empirical, and clinical basis for practice. Practicum gives supervised experience applying behavioral principles to clinical problems.

752A,P Cognitive Therapy (1-5)

Prereq: 637A. Didactic instruction and supervised clinical experience in cognitive-behavior therapy. Readings in clinical literature, instruction, and supervised clinical cases emphasizing the techniques and methods of cognitive-behavior therapy.

753A,B,P Community Psychology (1-5)

Prereq: 637A. Interventions and research in community psychology including consultation, mental health education, prevention of mental disorders, program evaluation, and services for underserved clinical populations. Practicum involves supervision of pertinent clinical experiences.

754A,B,P Group Therapy (1-5)

Prereq: 637A. Didactic instruction and supervised clinical experience in the techniques and methods of group psychotherapy. Typically one quarter of didactic instruction and readings in the clinical literature and two quarters of supervised experience as a group therapist.

755A,B,P Child Therapy (1-5)

Prereq: 637C. Didactic and practicum training in intervention with child and adolescent psychological disorders.

756A,B,P Family Therapy (1-5)

Prereq: 637A, 637C or concurrent. Survey of behaviorally-oriented family therapy approaches followed by an in-depth presentation of functional family therapy, a behavioral systems approach. Role playing, discussion, and supervised interventions with families are methods used to teach this model. Low-income, multiproblem families are typical clients in this sequence.

757A,P Interventions with the Aging (1-5)

Prereq: 637A. Review of psychological approaches to the understanding, assessment, and treatment of problems of the elderly. Practical, supervised experiences with an aging population are included.

758A,B,P Interventions in Health Psychology (1-5)

Prereq: 680. Application of psychological assessment and interventions to health psychology problems including chronic pain, headache, adaptation to chronic disease, psychological problems complicating medical treatment and compliance, stress-related disorders.

761 Survey of Industrial and Organizational Psychology (5)

Application of psychological theories and research to topics in organizational behavior and personnel psychology.

762A, B Organizational Psychology (4)

Prereq: 761. Study of behavior in organizations: (A) organizational behavior: motivation, social influence and groups, and leadership; (B) organizational theory: classical and contemporary perspectives on the process and structure of organizations.

763A Context Analysis (4)

Prereq: graduate standing. Introduces students to the theories and methods for analyzing contexts (e.g. environments, situations) for the purpose of selection, training, design, or diagnosis of individuals in these contexts. Methods of organizational, job, and task analysis will be emphasized.

764A, B Personnel Psychology (4)

Prereq: 622 and 761. Topics in personnel psychology: (A) criterion development and performance evaluation: theoretical and practical aspects of criterion development and performance evaluation; (B) selection and placement: psychological, measurement, and legal perspectives on selection and placement.

765 Practicum in Industrial and Organizational Psychology (1-5, max 15)

Prereq: 761, 762A or B, 764A or B. Supervised field experience in organizational settings.

773 Developmental Psychology (5)

Principles and research covering development of human abilities and behavior. Topics include developmental research methodology; basic processes in development; and physical, motor, perceptual, linguistic, emotional, motivational, social, and personality development.

775 Psychology of Exceptional Individuals (5)

Characteristics and problems of exceptional individuals: mentally retarded, mentally superior, sensory handicapped, emotionally disturbed, and culturally disadvantaged.

781 Pediatric Psychology (4)

Theory and research on the relationship between the psychological and physical well-being of children, behavioral and emotional concomitants of disease and illness as they affect children and their families, applications and effectiveness of psychological interventions.

789 Clinical Practicum (1-5, max 20)

Prereq: 750A, 751A, 754A, 755A, 756A, or 758A. Practicum experience for graduate students in clinical psychology. Psychological services provided under supervision in a clinical setting.

790 Readings in Psychology (1-5, max 20)

To broaden training of master's or doctoral students in areas in which they need further work, which cannot be obtained through specific courses at present.

791 Research (1-5)

May be repeated.

796 Fieldwork in Psychology (1-15)

Supervised experience in applied setting approved by department. May be repeated. 1-15 lab.

825 Causal Modeling (4)

Prereq: 623. Linear models, path analysis, and causal modeling with emphasis on using the LISREL computer program.

826 Advanced Testing Principles (4)

Prereq: 623. Test theory and statistical considerations in construction, use, and interpretation of psychological measures.

827 Multivariate Statistics I (5)

Prereq: 623. Introduction to multivariate statistics. Topics covered are matrix algebra, multiple regression, canonical correlation, discriminant analysis and classification, and factor analysis. Variety of commercial computer programs used.

828 Multivariate Statistics II (4)

Prereq: 827. Advanced topics in multivariate statistics, including multivariate analysis of variance (MANOVA), confirmatory factor analysis and causal analysis (LISREL), and log-linear models. Variety of commercially available computer programs used.

833 Advanced Theories of Personality (5)

Prereq: 633. In-depth analysis of selected modern theories and related research, taken from ego psychology, cognitive-perceptual, dimensional, developmental, or social viewpoints.

884 Psychopharmacology and Psychotherapy (4)

Prereq: 637A, 650. Nature and clinical use of major types of psychotropic medications; emphasis on antidepressants, mood stabilizers, antianxiety, and antipsychotic agents and on the clinical use of these medications in combination with psychological treatments.

889 Advanced Clinical Practicum (1-5, max 20)

Prereq: 750P, 751P, 754P, 755P, 756P, 758P, or 789. Advanced practicum experience for doctoral students in clinical psychology. Psychological services provided under supervision in a clinical setting.

891 Research in Psychology (1-6)**894A-Z Advanced Seminar in Psychology (1-5, max 18)****895 Dissertation (1-15)**

Social Sciences

The Master of Social Sciences degree is designed for graduate students who need to study two or more subjects within the social sciences field to earn a master's degree. Although most students are public school teachers, candidates in other occupations may apply. The degree is intended for students concluding their graduate education at the master's level.

The program is directed by a coordinator appointed by the dean of the College of Arts and Sciences. This coordinator supervises the policies that guide the program and coordinates admission, assignment of advisors with the social science departments, and the selection of a committee to administer the terminal oral examination.

Degree Requirements

To earn the Master of Social Sciences degree, you must complete a minimum of 45 quarter hours in a minimum of 10 graduate courses in two or more of the social science disciplines.

Major and minor fields and auxiliary areas are chosen from history, political science, economics, sociology-anthropology, and geography. Other subject fields such as psychology and social work that relate to your academic interest may be approved as minor or auxiliary fields.

Courses and credit are distributed as follows:

- 1** A major of five to seven courses equalling a minimum of 20 graduate credit hours.
- 2** A single minor, a minor and an auxiliary area, or two auxiliary areas. A minor consists of three to five courses for a minimum of 12 graduate credit hours. An auxiliary area consists of two courses for a minimum of 8 graduate credit hours.
- 3** Optional electives. One or two courses, for a maximum of 10 graduate credit hours, can be taken in other social science, science, or humanities areas if they relate to your academic program in the judgment of the coordinator.
- 4** Graduate survey requirement. You must complete one graduate survey course in your discipline designed to present a comprehensive survey of recent scholarship in that field.
- 5** Master's essay option. You can choose to write a master's research essay on a topic approved and directed by a graduate faculty member of your major field. The essay, taken for four or five hours of master's thesis credit, will count as one course in the major and as one of the 10 required courses.
- 6** Terminal examination. Upon completion of your studies, you must pass an oral examination designed and conducted by your examining committee. In composing this examination, the committee is guided by your program of courses and research so that the examination will be reasonable in scope.

Admission Requirements

You must have a bachelor's degree and at least one year of employment experience that is relevant to one or more social science disciplines. You should have an undergraduate grade-point average (g.p.a.) of 2.75 for unconditional admission. If your undergraduate g.p.a. is below 2.75, you are encouraged to apply but may be admitted conditionally or denied admission.

If you have 24 to 30 undergraduate credit quarter hours in an intended major, you may be required to undertake a minimum of seven courses and 28 quarter hours of graduate credit in your major. If you have fewer than 24 quarter hours of undergraduate credit in an intended major, you are required to register as a special student and take undergraduate courses required by the major department to qualify for graduate study in this program.

No more than 12 quarter hours in a maximum of three graduate courses passed with a grade of B or better can be accepted for this program from other colleges or universities. Credit earned in other Ohio University programs which, in the judgment of the coordinator, is appropriate for this program may be applied toward completion of the degree.

Social Work

The Master of Social Work (M.S.W.) program will begin in fall 1999. It will prepare students for clinical or administrative practice with a rural focus. A minimum of six quarters—90 credit hours—is required, including five quarters of fieldwork internship (one 15-hour quarter and four 20-hour quarters). The program admits students only in the fall quarter.

When applying, students are expected to have completed or nearly completed a bachelor's degree with course work in quantitative analysis, human biology, the humanities, and the social sciences, with course work in one social science area beyond the introductory level.

Students must also submit an official transcript, scores on the general portion of the Graduate Record Examination, three references, and an essay. The form for the essay can be obtained from the Department of Social Work or its website: <http://www-as.phy.ohiou.edu/Departments/SocWrk/grad.html#inquiry>

Social Work Courses (SW)

- 500 Social Work Orientation Seminar (3)**
Introduces students to the unique region of Ohio University through music, literature, films, folk art, and community exploration. Explores values, cultural systems, and social issues; and provides a forum for beginning the field placement process.
- 501 Human Behavior in the Social Environment I: Human Growth and Development (4)**
Incorporates biological, psychological and sociological perspectives on human development across the life cycle. Views human growth and development through ecological and systems perspectives with examination of the role of gender, class, sexual orientation, health status, and racial and ethnic membership.
- 502 Human Behavior in the Social Environment II: Biophychosocial Interactions (4)**
Prereq: 501. Explores the exchange among human biology, psychology, social and cultural systems to develop knowledge and sensitivity to concepts of multicausality and human diversity. Focus on the interaction and effects of social problems on different system levels as well as variations arising from race, culture, gender, socialization, sexual orientation, poverty, physical and/or cognitive impairment, stress, and maltreatment.
- 522 Social Welfare Policy and Services I: History of Social Welfare and Social Work (4)**
Presents an historical review of service delivery systems and the development of the social work profession. Considers the structure, operation, implementation and outcomes of social services; the values and ethics in social policy; the meaning of oppression and social justice; and the impact of social policy on the needs of women, persons of color, the poor, and other groups.
- 523 Social Welfare Policy and Services II: Special Topics in Social Welfare (4)**
Prereq: 522. Analyzes the development, operation, impact and strategies for change in today's social welfare policies and services. Responds to contemporary policy development throughout the U.S., with emphasis on federal, Ohio, and Appalachian targeted policies. Explores special settings, specific population groups, and various social policy issues..
- 541 Social Work Practice I: Foundations of Practice (4)**
Provides students with a broad perspective and foundation of knowledge and skills for practice, the theoretical foundation of social work practice, and social work values and ethics in relation to professional roles.
- 542 Social Work Practice II: Assessment and Intervention (4)**
Prereq: 541. This course builds on the generalist perspective by exploring current practice theories assessment and interventions. Emphasis is on how various theoretical models affect assessments of case material and practice decisions.

543 Social Work Practice III: Community-Based Practice (4)

Prereq: 542. Examines the systems in which people live, work, and are served, with focus on principles of social work practice that may be used to empower people to access, negotiate with, influence, and change various systems within the community.

561 Social Work Research Models (4)

Examines research methods as they apply to social work practice: formulation of problems, development of research questions or hypotheses, study designs, data collection, data analysis, interpretation of findings, and writing research reports. Emphasis on technology and its use in social work research.

591 Foundation Field I (4)

Helps students acquire knowledge, values, skills, and ethics in social work practice. Requires 16 hours per week in a social agency.

592 Foundation Field II (4)

Prereq: 591. Helps students acquire greater knowledge, values, skills, and ethics in social work practice. Requires 20 hours per week in a social agency.

Sociology

The M.A. program in sociology offers preparation for advanced graduate training, teaching, and employment in various government and private agencies.

The Department of Sociology and Anthropology has a policy document, available upon request, that describes the organization of the M.A. program. You consult with a faculty committee to design your program, which involves selecting courses and choosing between thesis and nonthesis options. A minimum of 50 hours of graduate coursework is required for the degree, plus examinations, a major paper, or a thesis. While the bulk of the coursework must be done in sociology, you also may take a limited number of courses in such related fields as public administration, computer science, philosophy, and history. The program is flexible and is designed to provide a fundamental grounding in theory and methods while allowing students to pursue specialized interests. The department has particular strengths in criminology, the study of deviance, gender studies, social psychology, and research methods. Upon request, a list of faculty members and their interests will be provided by the department. You should allow for four to six quarters of study.

Although the department does not adhere rigidly to undergraduate

prerequisites, you should have completed a minimum of 20 hours in sociology, and courses in statistics, methods, and theory are highly recommended. To apply, you should have an overall grade-point average (g.p.a.) of 3.0 on a 4.0 scale and at least a 3.0 g.p.a. in undergraduate courses in sociology. Submit to the Office of Graduate Student Services an application for admission and transcripts of all academic work; submit to the Department of Sociology and Anthropology a written statement of the area or areas of the discipline in which you are interested and why you want to study sociology, a sample of your written academic work, and letters of reference from three persons qualified to evaluate your capacity for graduate study in sociology. International students whose native language is not English must also submit the Test of English as a Foreign Language (TOEFL) scores.

Applications for admission are accepted until one month before the beginning of a quarter (three months for applications from abroad). Applications for financial awards ordinarily must be completed by March 15.

A limited number of graduate associateships and tuition scholarships are available. For information, write to the chair of the sociology graduate committee.

Sociology Courses (SOC)

503 Development of Sociological Thought (5)
Major sociological concerns and concepts in their social-historical setting. Emphasis on 18th and 19th centuries.

504 Modern Sociological Theory (5)
Major sociological conceptual frameworks in 20th century.

505 Readings in Sociology (1-5, max 15)
Independent directed readings designed to expand understanding in selected areas of interest not covered in regular course offerings. Not for preparation for comprehensive exams, final paper(s), or thesis.

507 Feminist Social Theory (5)
Prereq: Soc. 403 or 404. This course provides a general overview of contemporary perspectives in feminist social theory and cultivates awareness of the implications these perspectives hold for sociology. It also provides an in-depth examination of some of the influential writings by feminist sociologists. The course focuses on the ways in which basic assumptions, concepts, and questions in sociology are brought to light from feminist points of view.

508 Latin American Society (5)

Intensive study of Latin American society from a sociological perspective. Emphasis on contemporary Latin American values, population problems, human-land relations, levels and standards of living, social institutions, urbanization, and social change.

512 Public Opinion Processes (5)

Attitudes and opinions in relation to formation of public opinion; political socialization and participation; social status, reference groups, decision making; role of mass media.

513 Mass Communication (5)

Personal and social functions of content in newspapers, radio, television, and films. Types of audiences and communication effects. Organization and control of mass media and problems in evaluation.

514 Contemporary Social Movements (5)

Organized movements resulting in major social changes; revolutionary, nationalistic, reform, religious. Agitation, leadership, ideology. Case studies of typical movements.

516 Society and the Individual (5)

Exploration of compatibilities and contradictions in psychological systems, culture, and social structure.

518 Third-World Development (5)

Prereq: 2 courses in social sciences. Focusing on various, often contrasting, approaches to national development, discusses ways in which basic needs such as agriculture/rural development, education, housing, health, and urbanization are met, and discusses these approaches within context of ethical values. Countries discussed may include China, Brazil, Cuba, Nicaragua, Tanzania, South Korea, Taiwan, and Bangladesh.

519 Group Processes (5)

Major theories and methods for study of small group as unit of social systems. Study of communication patterns, role definition, leadership, cohesion, and interaction are included in reviews of current literature.

522 The American Family System (5)

Evolution of American family from colonial to present time. Analysis of structural and functional trends in light of theory and research.

524 Urban Sociology (5)

Historical development and recent emergence of city as dominant feature of modern social life. Demographic and ecological patterns and social organization of urban region.

525 Sociology of Food Production (5)

Examination of structural characteristics of agricultural sector of American society. Historical developments and current trends in demography as they relate to industrialization of agriculture, and examination of responses to these trends.

526 Industrial Sociology (5)

Various techniques used by management in U.S. to control employees, employee resistance and alienation, and proposals for changing present work arrangements. Examination of work relations and organization in Scandinavia, Germany, Yugoslavia, and Japan.

528 Sociology of Religion (5)

Interrelationship between religious institutions and social structure from comparative perspective but with particular reference to American society.

529 Sociology of Race, Ethnicity, and Class (5)

This course is designed with a concern for understanding racism and classism at the macro level of analysis. An interpretation of social forces affecting race and ethnicity as determinants of social class will be covered. The course will foster an understanding of racial and ethnic diversity.

530 Sociology of Organization (5)

Concentrates on structure and process of formal organizations. Modern society dominated by giant bureaucracies studied in detail. Various sociological perspectives for viewing organizations considered and evaluated. Impact of organizations on individuals discussed and problems of living in society dominated by organizations treated in depth.

531 Social Stratification (5)

Social and economic classes, castes, and other social strata; their origin, changes, and correlates in other spheres of society.

532 Political Sociology (5)

Analysis of social, economic, and political sources of corporate domination of state, opposition to such domination, and strategies for reducing it.

533 Sociology of Occupations and Professions (5)

Professionalism as characteristic of modern economic and industrial complexes; popular conception and modern theory; social and technological preconditions; occupation-profession continuum; components, barriers, and strategy; mock-professionalism; motivation and satisfaction; controls; professionalism in particular professions.

534 Sociology of Aging (5)

General introduction to social gerontology with emphasis upon normal aspects of aging. Major emphasis upon sociological dimensions of aging in context of such areas as socio-demographics of aging populations, values, roles, norms, self-concept, age stratification, aging patterns of minority groups, and application of current sociological theories of aging. Includes brief examination of social policy from sociological point of view.

535 Sociology of the Welfare State (5)

How proponents of sociological perspectives deal with the emergence, organization, growth, and contemporary issues of the U.S. social welfare systems. Some attention will also be paid to the social welfare systems of Sweden and other European countries.

550 Data Analysis (5)

Focuses on the ability to analyze research data in the social sciences. Linkages between measurement, statistics, and interpretation of results are stressed in exercises. Unscheduled computer laboratory commitment is required.

553 Research Problems in Sociology (1-5, max 15)

Individual research in specific problem areas in which student has demonstrated ability and interest. Not for preparation for comprehensive exams, final paper(s), or thesis.

564 Law and Social Control (5)

Explores the nature of institutional control and sociocultural constraint as they affect human behavior. Issues covered include the development of formal control mechanisms in societies, precursors of legislative and judicial law, the binding force and authority of law, the effectiveness of formal control mechanisms for reducing specific behaviors, how administrative agencies increase regulation of daily life and "net widening" occurs, and law's effectiveness as a social change agent. Reading material covers the U.S. and some other societies.

565 Social Change (5)

Prereq: 12 hrs. Dynamics and processes by which social change takes place, major theories of change, industrialization and modernization, planned change, social impact of change.

566 Penology (5)

History, practices, and purposes of punishment using organizational, criminological, and sociological perspectives. Effectiveness of rehabilitation programs explored. Alternatives to incarceration examined.

567 Violence Against Women (5)

Examines related forms of violence where women are the predominant victims: forcible rape, marital rape, incest, spousal assault, date rape and assault, and sexual harassment. Role of pornography examined. Emphasis on current theoretical and empirical findings and developments.

570 Sociology of Gender (5)

Prereq: 8 hrs sociology. Examination of social influences that affect lives and opportunities of females and males in society, how these social influences interact to foster gender inequalities, and changes that are occurring.

571 Gender and Justice (5)

Explores how the interpretation and application of criminal law reflect assumptions about men's/boys and women's/girl's natures, appropriate roles, and positions in society. Historic and contemporary readings examine the prosecution of violence against women; the prosecution, sentencing, and correction of women offenders; and women's access to the profession of law, particularly the judiciary. Readings highlight how structure at the societal and organizational level and interpersonal interaction contribute to legal gender effects and to the intersection of race and class with gender.

590 Special Studies (1-5, max 10)

Studies of special topics in basic sociological perspectives, theory, and methods.

600 Graduate Seminar (4-6)

Critical examination of selected topic.

601 Graduate Seminar (4-6)

Critical examination of selected topic.

602 Graduate Seminar (4-6)

Critical examination of selected topic.

603 Seminar in Social Disorganization (4-6)

Critical examination of topics in area of social disorganization.

604 Graduate Seminar (4-6)

Critical examination of selected topic.

605 Graduate Seminar (4-6)

Critical examination of selected topic.

606 Graduate Seminar (4-6)

Critical examination of selected topic.

607 Graduate Seminar (4-6)

Critical examination of selected topic.

608 Graduate Seminar (4-6)

Critical examination of selected topic.

609 Graduate Seminar (4-6)

Critical examination of selected topic.

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Critical examination of selected topic.

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Critical examination of selected topic.

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Critical examination of selected topic.

613 Graduate Seminar (4-6)

Critical examination of selected topic.

614 Graduate Seminar (4-6)

Critical examination of selected topic.

615 Seminar in Social Psychology (5)

Prereq: permission. Systematic examination of contemporary theoretical and research issues in social psychology. Topics may include theory and research on self, equity, expectations, exchange, and emotions.

616 Sociological Theory (5)

Systematic examination of sociological theory with an emphasis on current theoretical perspectives and debates.

620 Social Policy (5)

Prereq: graduate standing. This seminar explores a number of domains of social policy and the following sociological questions: How is social policy formed? What government and institutional processes result in the creation and alteration of social policy? How are members of the lay public involved in the creation and alteration of policy? What are the limits of social engineering? Do social policies achieve the ends toward which they are directed? Where does social policy break down? To what extent is social policy implicated in the maintenance of existing structures of power and social inequality? How do we evaluate social policy analyses?

654 Social Research Methods (5)

Analysis of process of sociological research in terms of problem definition, research, design, data sources, and methods of data analysis.

690 Independent Study (1-5, max 10)

For graduate students in good standing who wish to undertake independent study toward M.A. degree under guidance of faculty member.

691 Seminar in Teaching Sociology (5)

Prereq: permission of instructor. This course is only for sociology graduate students engaged in the teaching internship process. The seminar will reinforce classroom experiences with discussion of teaching techniques and processes.

695 Thesis (1-10, max 10)

Women's Studies

The Women's Studies Program offers an interdisciplinary graduate certificate in women's studies. Students enrolled in any master's or doctoral program at the university may pursue this certificate by taking three of the courses listed below and WS 500 (taken last) for a total of 20 credit hours. Two of the three courses must be outside your major field of study.

The following are some of the courses offered by departments and cross-listed under Women's Studies. Descriptions are listed under the various departments. Several departments offer additional graduate courses – for example, Colloquium on U.S. Women's History – that focus on women and gender and that may carry credit toward the graduate Women's Studies Certificate.

AAS 582	The Black Family
ANTH 545	Gender in Cross-Cultural Perspective
FILM 633	Women in Film
HIST 520	Women in American History
HIST 532	Women in the Middle East
HIST 560	Women in European History
INCO 621	Gender and Communication
INCO 789	Feminism and Rhetorical Theory
POLS 519	Gay Politics
POLS 520	Women, Law, and Politics
POLS 578	Feminist Political Theories
SOC 507	Feminist Social Theory
SOC 567	Violence against Women
SOC 570	Sex Roles and Inequality
SOC 571	Gender and Justice
TCOM 581	Women and Media
TCOM 586A	Age, Class, Gender, Race, and Sexual Orientation in the Media

Women's Studies Courses (WS)

500 The New Scholarship on Women: The Question of Difference (5)

Question of sexual difference has both plagued and motivated contemporary feminist analyses. Course explores what new scholarship on women in diverse disciplines contributes to question of differences among women and between women and men, so that students can approach the issue of difference in responsible, critical, and rigorous ways.

590 Independent Reading (1–5, max 5) Directed individual reading and research.

College of Business

Copeland Hall

Glenn Corlett
Dean

The College of Business offers the Master of Business Administration (M.B.A.) and the Master of Science in Accountancy (M.S.A.). The M.B.A. is available through a full-time program, Executive MBA, and its newest graduate program, the MBA Without Boundaries. The M.S.A. is offered only through a full-time program. The full-time M.B.A. and M.S.A. programs are offered on a residential basis on the Athens campus. The Executive MBA is offered on the Lancaster campus in a two-year sequence of weekend courses and is open only to experienced business executives. The MBA Without Boundaries, a part-time, two-year program, combines the convenience of on-line education, the latest in information technology, and face-to-face interactions with faculty and colleagues during high-intensity residential experiences. All programs are accredited by the American Assembly of Collegiate Schools of Business.

Graduate Programs and Courses

College of Business graduate programs are limited in size, with an average class of 40 students. These small, highly selective programs allow you to form close associations with your peers and to meet frequently with faculty.

Graduate associateships and tuition scholarships are available to students in the full-time programs.

Information on graduate programs appears in the following pages. For further details on full-time programs, contact College of Business Graduate Programs, Ohio University, Copeland Hall, Athens OH 45701-2979, telephone 740-593-2007. For further details on the Executive M.B.A., contact the director, EMBA Program, Ohio University, Copeland Hall, Athens OH 45701-2979, telephone 740-593-2028.

Information on the college and its graduate programs is also available on the college Web site:
<http://www.cba.ohiou.edu/>

Full-Time M.B.A.

The M.B.A. program is considered an integral part of individual career development. It provides a comprehensive and integrated set of activities designed to foster your personal and professional growth. Close interaction with the faculty, an integrated electronic network environment, contact with executives, and a joint student study project abroad all contribute to your development.

The M.B.A. stresses producing a competent, ethics-oriented general manager with the appropriate skills and expertise to manage in a competitive global environment.

The full-time M.B.A. program is an intensive 12-month program that begins in late August, with classes meeting until September of the following year except during the period between Christmas and New Year's. The full-time program is limited to 50 to 60 students. A total of 72 credit hours of instruction is required over the 12 months. Candidates sign up for 18 credit hours for each of four quarters: fall, winter, spring, and summer.

The full-time M.B.A. program provides the critical balance between theory and application. You are involved in developing the knowledge, skills, and abilities required of a successful manager. Learning in the context of solving complex business problems is stressed to accomplish the following goals:

Development of functional expertise

Development of managerial skills

Application and integration of functional and managerial expertise

Development of lifelong learning skills.

The central learning core of the program is a series of business problems. You will approach and solve the problems, sometimes in task forces, sometimes individually. You will be presented with course content in modules, with each module presented at a time when it will be useful to you for solving the current learning problem.

This methodology helps you learn content in the context in which you will apply it in the future, maximizes retention of knowledge, and helps you develop the ability to apply your knowledge. It also encourages what business has indicated to be important personal characteristics: reliability, personal responsibility, time management, initiative, adaptability, and the willingness to take risks. Further, because of the learning environment, you learn to work using the latest in information technology, and you learn how to work cooperatively, managing ill-structured problems with a minimum of direction.

M.B.A. students are required to participate in the Joint Student Consulting Project (JSCP). Students work in a cross-cultural setting on project teams with students from a host institution. JSCP provides students with the valuable experience of working, even briefly, in a country with a different economic and cultural environment—and with a first-hand knowledge of the complexities of international business. Students pay approximately \$3,500 to cover travel expenses, accommodations, and meals. JSCP generally takes place in the summer and lasts about two weeks.

The goal of the program is to provide to students:

A holistic understanding of business and the global environment in which business functions.

Knowledge of basic disciplines and the ability to apply that knowledge effectively.

The ability to analyze a complex, dynamic business situation, identify fundamental issues in need of resolution, organize and synthesize ideas appropriate to that situation, and determine action to be taken.

The ability and self-confidence to take initiative and function independently.

The capacity to tolerate ambiguity and operate effectively under conditions of uncertainty.

The ability and self-confidence to clarify roles through interaction with others, within and outside of an organization.

The ability to manage self—time, stress, resources, and priorities.

The ability to communicate information and ideas effectively in formal and informal presentations and in writing.

The ability to work effectively using electronic information technology.

The ability to collaborate effectively—to influence others and be influenced; to listen and understand; to work out differences so they do not become destructive conflicts; and to use diverse perspectives, cultures, and expertise to maximize effectiveness.

Admission

Admission is competitive. Factors considered include undergraduate grade-point average (g.p.a.), Graduate Management Admissions Test (GMAT) scores, work experience, M.B.A. questionnaire, interview, and recommendations. International applicants also must include their score on the Test of English as a Foreign Language (TOEFL). Successful applicants typically have at least a 3.0 undergraduate g.p.a. (on a 4.0 scale) and a score of 500 or

better on the GMAT; international applicants typically have a TOEFL score of 600 or better.

To apply, submit two official transcripts of your undergraduate work, three letters of recommendation, and responses to the MBA questionnaire (available from the College of Business Graduate Programs Office). In addition, you must have GMAT scores submitted by the Educational Testing Service (ETS), Box 966, Princeton NJ 08540. If your native language is not English, you must also have ETS submit your TOEFL scores.

The deadline for application is March 1.

Financial Aid

The College of Business has a number of graduate associateships and tuition scholarships available for students who demonstrate outstanding potential.

Requests for financial aid should be noted on the application form. All awards for financial aid are generally announced in April.

M.B.A. Without Boundaries

Ohio University challenges traditional thinking about part-time MBA programs with a new and innovative approach to business education. The M.B.A. Without Boundaries combines the “any time, any place” convenience of on-line education, the latest in information technology, and face-to-face interaction with faculty and colleagues during intensive residential experiences. This program breaks down the barriers of conventional M.B.A. programs and is designed specifically for high-potential working individuals who want to be corporate leaders. It merges project-based action learning with electronic collaboration. And, because students continue their employment while they’re enrolled in the program, they can integrate work experiences with learning experiences to develop the knowledge, skills, and personal characteristics that help ensure long-term success.

The program, which is built around nine major learning projects, requires a two-year commitment. It includes three one-week residencies—one at the beginning, middle, and end of the program—as well as three weekend residencies between each of the week-long residencies. At other times, students use an intranet to gain access to learning modules, perform individual research, collaborate with other members of their learning team, and interact with faculty.

For more information, visit the program's Web site at <http://mbawb.cob.ohiou.edu>. It describes the nine learning projects that are the heart of the program, gives samples of past projects, and offers more detail about leadership skill development. You can also "meet" some of the program faculty and learn about its external review team—the group of business executives and learning experts who helped develop the program. You can even submit your application on line.

Executive M.B.A. (at Lancaster)

The Executive MBA Program is designed for experienced executives who want to earn an M.B.A. without career interruption. Courses are offered exclusively at the Ohio University–Lancaster campus. Classes meet three Saturdays and one Friday a month during each of two academic years, with an independent research project completed during the intervening summer.

The program is beneficial to both the employer and the executive. Organizations have the opportunity to strengthen management resources, and executives are able to upgrade their managerial skills and improve their opportunities for advancement.

The extensive business experience of both faculty and M.B.A. candidates, use of the seminar method for most teaching, and the deliberate attempt

to select participants from diverse functional areas and businesses provide a stimulating intellectual experience.

Candidates must have a baccalaureate degree, a minimum of seven years of professional or managerial experience, and the support of their employer. A personal interview is the final step in the admission process.

For detailed information contact the Director, Executive MBA Program, Copeland Hall, Ohio University, Athens OH 45701-2979, telephone 740-593-2028.

Full-Time M.S. in Accounting

The mission of the School of Accountancy is to prepare bright people for successful careers in the accounting profession. The School of Accountancy provides a superior education with competent professors who challenge their students to excel and support their students' professional aspirations.

By 2000, graduate study will be a requirement for becoming a Certified Public Accountant, and a master's degree is also becoming more desirable for other branches of the accounting profession. With recent developments in technology and international business, more knowledge and skills are needed to become partners in CPA firms, corporate controllers, and chief financial officers of governmental and not-for-profit organizations. The full-time Master of Science in accounting program is designed to satisfy those needs.

The MSA program has two major objectives. The first is to prepare student's to pass the CPA exam. The second is to provide, through MIS concentration, the specialized computer skills that today's job market demands. We believe that the combination of MIS skills and accounting certification is more valuable than training in a single area. And with a ratio of 12 faculty to a maximum MSA class of 40, the School of Accountancy can provide individual mentoring.

All candidates must take 12 courses (48 credit hours) beyond the foundational coursework (generally accomplished through an undergraduate accounting degree). Foundational coursework for students with undergraduate degrees in engineering, communication, arts, and sciences can be taken through our Quick Start Program. Courses required in the MSA curriculum include six advanced courses in accounting, a three-course master's level Management Information Systems sequence, business law, and approved electives. A thesis is not required.

Admission

A bachelor's degree in accounting or equivalent coursework is required for admission to the program. If you do not have a background in business studies, you will need foundation courses in communication, human behavior, mathematics, economics, accounting, business law, computer use, business finance, operations management, statistics, and marketing. Special programs of study are arranged for students with bachelor's degrees in other majors.

Applications are considered at any time, but preference is given to those received by April 1 for the fall quarter. You may apply for admission in any academic quarter, but financial aid may not be available for students who do not enter in fall quarter. You must submit scores for the Graduate Management Admission Test (GMAT). Applicants whose native language is not English must also submit scores for the Test of English as a Foreign Language (TOEFL). To be considered for admission, you normally should have at least a 3.0 overall grade-point average, 500 or better on the GMAT, 600 or better on the TOEFL (if applicable), and a ranking in the top half of your undergraduate class or demonstrated success in subsequent endeavors.

We encourage applications from members of groups who have been traditionally underrepresented in the accounting profession.

Courses

Accountancy Courses (ACCT)

501 Accounting Principles (4)

Intensive overview of accounting theory, practice, and statement preparation. *F, W, Sp, Su.*

502 Managerial Accounting (4)

Prereq: 501. Uses of accounting information for making managerial decisions. *F, W, Sp, Su.*

503 Intermediate Accounting I (4)

Prereq: 502. In-depth study of conceptual framework of accounting, disclosure standards for general purpose financial statements, and measurement standards for cash, receivables, inventories, and associated revenues and expenses, including application of compound interest techniques. *F, W.*

504 Intermediate Accounting II (4)

Prereq: 502. Measurement and reporting standards for tangible and intangible operating assets, investments, liabilities, contingencies, stockholders' equity, and special problems of revenue recognition. *W, Sp.*

505 Intermediate Accounting III (4)

Prereq: 504. Measurement and reporting standards for pensions, capital leases, interperiod tax allocation, dilutive securities and earnings per share, accounting changes and error correction, statement of cash flows, financial statement analysis, special disclosure standards, financial reporting, and changing prices. *F, Sp.*

506 Advanced Financial Accounting (4)

Prereq: 505. Business mergers, consolidated financial statements, partnerships, international operations, corporate bankruptcy, and branch office accounting.

507 Current Accounting Topics (4)

Investigation of current topics. *D.*

510 Cost Accounting (4)

Prereq: 502. Emphasis on manufacturing and service organizations. Topics include process costing, activity-based costing/activity-based management, analysis of cost variances, and complex capital budgeting issues. *W, Sp.*

513 Accounting for Governmental and Not-for-Profit Organizations (4)

Prereq: 503. Accounting theory for government and nonprofit organizations: financial reporting, fund accounting, budgeting, and control. *D.*

517 Federal Income Taxes (4)

Provides an overview of the impact of federal income taxes on conducting business as individuals, corporations, partnerships, and fiduciaries. *W or Sp.*

519 Accounting Information Systems Prototyping and Design (4)

Prereq: 545. Basic orientation in prototyping and programming techniques. Use of the Internet and the intranet for financial reporting. Provides the background to accounting students for upper-level MIS courses. *D.*

540 Advanced Cost Accounting (4)

Prereq: 510. Analysis of relevant costs for decision-making, including nonmanufacturing costs, and analysis of current topics in cost accounting. *D.*

545 Accounting Information Systems and Internal Controls (4)

Prereq: 503. Use of computer technology and internal control concepts in the design, implementation, and operation of accounting information systems. *F, W.*

547 Tax Research (4)

Prereq: 517. Advanced tax problems of individuals, partnerships, and corporations, with emphasis on tax research and research methodology. *D.*

551 Auditing Principles (4)

Prereq: 505. Basic concepts and applications in external, internal, and governmental auditing. Includes an introduction to current audit technology. *F, W.*

552 Advanced Auditing (4)

Prereq: 551. Advanced auditing theory and practice, emphasizing forensic and fraud accounting, current developments in the auditing profession, auditing standards, and legal and ethical issues. *D.*

557 Advanced Taxes (4)

Prereq: 517. Taxation of corporations, partnerships, and S corporations, including organizations, distributions, reorganizations, and liquidations.

601 Accounting Theory (4)

Prereq: 505. Development of accounting thought, with emphasis on alternative accounting models and different methods used in other countries. *F.*

617 Taxation of Corporations and Shareholders (4)

Prereq: 517. Analysis of corporate taxes, contributions, distributions, redemptions, and liquidations. Overview of reorganizations and survival of attributes. *D.*

620 Advanced Accounting Problems (4)

Analysis, interpretation, and solutions of complex accounting problems of the type appearing in official CPA examinations. *D.*

627 Federal Taxation of Partnerships and Limited Liability Companies (4)

Prereq: 517. Income allocation, partner and partnership bias, contributions, distributions, tax years, and special elections. *D.*

630 Managerial Accounting (4)

Prereq: 501, 502, FIN 525. Planning and control of organizations through internal and external quantitative information, emphasizing techniques and theory of accounting and finance. *D.*

631 Controllershship (4)

Uses of accounting data in medium and large organizations. Includes short-run and long-run decision-making techniques, internal control procedures, and the role of accounting data in performance evaluation and motivation of organizational subunits and the individuals within these units. *D.*

645 Advanced Accounting Information Systems (4)

Prereq: 545. Student teams analyze real-world problems to design and implement accounting information systems. Requires written and oral presentation of findings and extensive use of database management techniques. *D.*

691 Seminar (1-5)

D.

693 Readings (1-5)

D.

695 Thesis (1-15)

D.

697 Independent Research (1-5)

D.

698 Professional Internship (1-5)

Three to 10 weeks of professional experience. Requirements include written and oral reports analyzing work experience and academic preparation for professional practice. *D.*

699 Research (3-5)

D.

Business Administration Courses (BA)

570 Administrative Policy (4)

Top management view of decision making affecting future operations of a business, and opportunities, risks, and responsibilities accompanying formulation of company policy and strategy. *F, W, Sp, Su.*

585 International Business (4)

Emergence of U.S. and non-U.S. multinational corporations, scope of their operations, and impact on U.S. economy and consumers.

690 Research (3-5)

Methodology, data analysis, and preparation of research findings. *D.*

691 Seminar (1-5)

Selected topics of current interest. *D.*

693 Readings (1-5)

Readings on topics selected in consultation with faculty member. *F, W, Sp, Su; Y.*

697 Independent Research (1-5)

Research in selected fields of business administration under direction of faculty member. *F, W, Sp, Su; Y.*

698 Internship (1-5)

F, W, Sp; Y.

Business Law Courses (BUSL)

500 Law and Society (4)

Conceptual approach to origin, nature, structure, functions, and procedures of law with study of contractual relationships. *F, W, Sp, Su.*

556 Law of the Management Process

Prereq: 500. Conceptual framework of legal nature of organizations, particularly corporations and partnerships: rights, powers, and limits of managers in relation to duties and responsibilities to their organizations, owners, creditors, employees, customers, state, and public.

557 Law of Commercial Transactions

Prereq: BUSL 500 or perm. Legal aspects of commercial paper, consumer credit, and bankruptcy.

560 Law of Health Care Industry (4)

Analysis of public/private contracts in foundation health agencies; experimentation and risk assumption; agency and independent contract liability; reasonable standards of care doctrines; governmental regulations; liability of nurses, doctors, and hospitals.

565 Law of Sports (4)

Addresses legal issues raised by industry with vast contours. Regulations of amateur athletics, public regulation of sports activities, legal relationships in professional sports, enforcement of professional sports contracts, antitrust aspects of sports activities, liability for injuries in sports activities. *W*.

570 Environmental Law (4)

Legal aspects of individual and societal environmental rights and duties with respect to U.S. Constitution, private property, nuisance, negligence, statutes, regulatory agencies, and court decisions. *W, Sp*.

575 Government and Business (4)

Governmental regulatory environment of business including analysis of statutes, court decisions, and rulings affecting policy decisions.

690 Research (3-5)

Methodology, data analysis, and preparation of research findings.

691 Seminar (1-5)

Selected topics of current interest.

693 Readings (1-5)

Readings on topics selected in consultation with faculty member. *F, W, Sp, Su*.

697 Independent Research (1-5)

Research on topics selected in consultation with faculty member. *F, W, Sp, Su; D*.

Finance Courses (FIN)**525 Foundations of Finance (4)**

Role of financial management in business enterprise; financial analysis; planning needs for short-term and long-term funds; planning for profits; capital budgeting; internal management of working capital and income; raising funds to finance growth of business enterprises. *Sp*.

527 Financial Markets and Institutions (4)

Functions of commercial banking system and other financial institutions. Flow of funds and interest-price movements in money and capital markets. Supply of loanable funds and demand for funds in mortgage loan market, consumer credit market, corporate securities and municipal obligations. Considers effects on financial markets of Federal Reserve and Treasury policies. *F, Sp; Y*.

528 Management of Financial Institutions (4)

Analysis of objectives, functions, practices, and problems of financial institutions as viewed by management of these institutions. *Sp; Y*.

536 Life Insurance (4)

Fundamental economics of life insurance. Principles and practices of life insurance, including types of contracts, group and industrial insurance, and annuities. *W; Y*.

542 Security Analysis (4)

Selection and evaluation of individual securities and industries. Fundamental analysis and determination of intrinsic value based on estimates of payment streams, capitalization rates, and rapidity of price convergence. Technical analysis and study of price-volume, trend following, and crowd psychology. *Sp*.

545 Portfolio Management (4)

Decision-making processes in management of individual and institutional securities portfolios. Theoretical foundations of portfolio selection and construction. Model building and other criteria applicable to selection, risk-return trade-offs, revision, and evaluation of portfolio performance. Applications of computer technology and other quantitative techniques to different aspects of portfolio management. *Sp; Y*.

555 International Finance (4)

Developing skills to deal with variables influencing financial decision making for multinational firm and international business. Foreign exchange rate determination, measurement of exposure, and exchange risk management. Study of strategies of entry in foreign markets and investment analysis of foreign projects. Study of working capital management. Study of institutions, practices, and problems related to financing foreign trade. *F; Y*.

561 Financial Management and Policy (4)

Case study of financial management in business enterprises. Planning current and long-term financial needs, profit planning, allocation of funds, raising funds, dividend policies, expansion and combination, recapitalization and reorganization. *F, Sp; Y*.

563 Capital Allocation (4)

Planning capital outlays, ranking investment proposals, theories of financial structure and cost of capital, and approaching investment decisions under conditions of uncertainty. *W*.

565 Mathematical Analysis of Financial Decisions (4)

Application of quantitative methods to financial management, with special emphasis on systems approach to evaluating proposed financial decisions. *D*.

620 Financial Management I (4)

Covers financial analysis, planning, control, and various aspects of long-term financing, including equity versus debt, refunding, leasing, and convertibility. *W; Y*.

621 Financial Management II (4)

Involves the application of financial theory and analysis techniques to the major financial decisions facing managers. Topics include financing current operations, capital structure, cost of capital, dividend policy, investment decisions. *Sp; Y*.

650 Seminar in Money and Capital Markets (4)

Analysis of conditions in money and capital markets as they affect business decisions; flow of funds in the U.S.; states; structures of interest rates; role of monetary policy and its effects on financial markets; principal instruments and intermediaries in money and capital markets; analysis of important segments of financial markets. *D*.

651 Seminar in International Finance (4)

Prereq: BA 685. Addresses advanced topics in international finance from both conceptual and practical viewpoints. Topics include foreign exchange risk management, long-term investment decisions for the multinational firm, home and host country sources of financing (including Eurocurrency and Eurobond markets). *D*.

690 Research (3-5)

Methodology, data analysis, and preparation of research findings. *D*.

691 Seminar (1-5)

Selected topics of current interest. *F, W, Sp; D*.

693 Readings (1-5)

Readings on topics selected in consultation with faculty member. *F, W, Sp, Su; D*.

697 Independent Research (1-5)

Research under direction of faculty member.

F, W, Sp, Su; D.

698 Internship (1-5)

F, W, Sp; Y.

Human Resource Management Courses (HRM)**520 Human Resource Management (4)**

Prereq: MGT 200, 202, 300, or 500. Survey of human resource management practices in areas of human resource planning, recruitment, selection, training and development, performance appraisal, compensation, discipline, safety audits, and personnel research. Includes applications in employment law and discussion of interface of line and staff responsibilities in organization. *F, W, Sp, Su*.

525 Labor Relations (4)

Prereq: MGT 200, 202, 300, or 500. Study of labor-management relationships, organization campaigns, contract negotiations, grievance procedures, arbitration, and mediation and conciliation. Case studies and class exercises used extensively. *F, W, Sp, Su*.

530 Compensation (4)

Prereq: 420 or 520, QBA 201 or INCO 301 or equiv. Advanced study of human resource management function of compensation administration. Topics include job analysis, job evaluation, compensation surveys, pay structure design and implementation, benefits administration, and incentive programs. *F*.

540 Human Resource Training, Development, and Research (4)

Prereq: HRM 420 or 520, QBA 201 or INCO 301 or equiv. Advanced study of human resource management functions of employee training and development and personnel research. Topics include new employee orientation; training needs analysis; training program design, implementation, and evaluation; applied personnel research methods; and costing human resource programs. Credit not given if student has completed INCO 632. *W*.

550 Recruitment, Selection, and Appraisal (4)
Prereq: HRM 420 or 520, QBA 201 or INCO 301 or equiv. Advanced study of functions of recruitment, selection, and performance appraisal in organizations. Topics include recruitment planning and strategy, predictors for employee selection, criteria for evaluating job success, validation strategies, equal employment opportunity and affirmative action programs, and design and administration of employee performance appraisal systems. *W*.

560 Human Resource Policy, Planning, and Information Systems (4)
Prereq: 425 or 525, 430 or 530, 440 or 540, 450 or 550. Advanced integrative course serving as capstone in study of human resource management. Students expected to apply their knowledge of human resource strategies, techniques, and constraints through cases, experiential exercises, and other projects. Role of human resource information systems as basis for planning and policy decisions discussed. *Sp*.

691 Seminar (1-5)
Selected topics of current interest in human resource management. *D*.

697 Independent Research (1-5)
Research involving some human resource management topic. Topic selection and study are under direction of faculty member. *D*.

Management Courses (MGT)

500 Management (4)
Management and organization concepts and theory. Emphasis on integration of concepts, case analysis, and application. *F, W, Sp, Su*.

528 Nonindustrial Labor Relations (4)
Labor management relations problems and practices in nonprofit organizations such as government (city, county, state, and federal), educational institutions, charity and health care organizations. Covers such topics as relevant laws and regulations, administrative response to unionization attempts, contract negotiation. *Y*.

530 Management Systems: Decision Making (4)
Decision making and problem solving in organizations from a managerial perspective.

535 Management of Human and Technological Information Systems (4)
Prereq: 530. Focuses upon humans and machines as components of formalized information systems. Subject matter approached from systems and procedures viewpoint, with emphasis on management planning and control techniques. *Y*.

540 Organizational Behavior—Micro Perspective (4)
Conceptual framework of behavioral sciences to management and organizations. Motivation and leader behavior within organizational settings. *F, W, Sp, Su*.

545 Organizational Behavior—Macro Perspective (4)
Organizational theory and behavior emphasizing formal organizational theory and work group behavior. Concentrates on interaction between organization, its environment, and its members and influence of informal work groups on member behavior. *F, W, Sp*.

550 Managing Health Care Organizations (4)
Prereq: 200 or 300. Analysis of basic dimensions of managing health care organizations. Develops conceptual tools for understanding health care management problems and provides practice in analyzing and solving actual health care management problems. *Y*.

580 Business Organizations—Change and Development (4)
Prereq: 500. Advanced study of the theory of internal change processes and organizational development within business organizations. Topics include role of the manager in the change process, need for change, systems analysis of the change process, identification of change processes, research considerations, use of internal vs. external change agent, and current trends. *Y*.

584 International Comparative Management (4)
Survey and analysis of similarities and differences in management systems, processes, and styles, as well as evaluation of changes and their impact in selected groups of countries. *Y*.

586 Business World of Asia (4)
Prereq: 500 or perm. Examines the current business environment of Asia, with a special interest in Southeast Asia. Actual business cases and environmental conditions are examined with sensitivity to the influences of history, culture, religion, political economy, geography and current events. Emphasis is on broad reading, current affairs awareness, and access to global information resources. Students are also encouraged to develop special familiarity with one country, to network for broader understanding, and to pursue research of personal interest.

591 Seminar (1-5)
Selected topics of current interest in management and organizational behavior. *D*.

684 International Comparative Management (4)
Survey and analysis of similarities and differences in business management systems, processes and styles, as well as evaluation of changes and their impact in selected groups of nations.

691 Seminar (1-5)
Selected topics of current interest. *D*.

692 Management Thought (4)
Review of development of managerial theories from 5000 B.C. to present with consideration of their application to present organizational settings. *D*.

693 Readings (1-5)
Readings on topics selected in consultation with faculty member. *F, W, Sp, Su*.

694 Management Research (4)
Practical application of research methods in behavioral sciences to management problems, emphasizing research available and its use in decision making and in solving managerial problems. *D*.

696 Organizational Behavior—Managing Change (4)
Prereq: 540 or 545. Planning and implementing change in organizational settings. *D*.

697 Independent Research (1-5)
Research in selected fields under direction of faculty member. *F, W, Sp, Su*.

698 Internship (1-5)
F, W, Sp, Su; Y.

Management Information Systems Courses (MIS)

600 Microcomputer Competency (1)
Introduction to word processing and spreadsheet software (e.g., Lotus 1-2-3) on microcomputers. *F*.

697 Independent Research (1-5)
Research under direction of faculty member. *D*.

Marketing (MKT)

501 Marketing Principles (4)
Emphasis on practices and problems of marketing manager and environment in which he or she operates, supplemented with business cases. *W; Y*.

504 Management of Distribution (4)
Problems encountered by manufacturer in establishing and maintaining effective distribution system, concentrating on channel design and strategies. *W; Y*.

520 Services Marketing (4)
Prereq: 501. Reflects the increasing proportion of GNP taken up by the service sector. Included are the recreation industry, government agencies, financial institutions, professional services, and industries which do not sell physical goods as their main offering to the public. Consists of lecture, case analysis, and outside assignments. Students analyze materials and write short reports. *D*.

525 Industrial Marketing (4)
Investigation and analysis of problems involved in marketing of industrial products. *D*.

541 International Marketing (4)
Marketing problems, opportunities, and organization of multinational firms to serve overseas markets. Government aids and impediments, and a comparison of markets and marketing techniques in U.S. and foreign countries. *Sp; Y*.

544 Consumer Behavior (4)
Individual, social, and cultural influences that affect consumer behavior. Consideration of explanatory and predictive models. *F, W, Sp; Y*.

550 Management of Promotion (4)
Problem-solving course leading to development and management of firm's promotional mix with emphasis on use of mass media and on stimulation of reseller's cooperation. *W; Y*.

558 Sales Management (4)
Principles and practices in planning, organizing, and controlling sales force. Selection, training, compensating, supervising, and stimulating salesmen. Analysis of sales potentials and costs. *W; A*.

561 Social Issues of Marketing (4)
Designed to increase awareness of future marketing managers of contemporary social issues and legal requirements of marketplace. Areas include social critics, past and present, and their criticisms, including excessive promotion, unsafe and unnecessary products, high prices, and possible societal and governmental response to these criticisms. *A*.

562 Product Development (4)
Examination of new product development activities to identify significant factors to be studied and decisions required in researching, manufacturing, and marketing new products.

579 Marketing Research (4)

Techniques involved in collection, tabulation, and analysis of marketing information. *F; Y.*

635 Managing and Developing New Products (4)

Focus on nurturing innovation, introducing new products, strategic planning for new products, and managing the entrepreneurial firm. *D, Sp; Y.*

641 International Marketing (4)

Students develop skills to make marketing decisions in a global context, such as finding new markets, customizing products for the demands of new markets, discovering which products are wanted by world customers, learning how to reach them, determining appropriate pricing strategies and distribution channels. Not open to students who have taken MKT 541. *D.*

645 Seminar in Consumer Behavior (4)

Behavioral science research as it applies to marketing process. *D.*

663 Marketing Strategy (4)

Analysis of preparation and organization of overall marketing plans, and elements of marketing mix. Also developed are merchandising analyses, objectives, and strategies that take into consideration the ever-changing consumer, trade, and legal environment, as well as firm's costs. *W.*

690 Research (1-4)

Methodology, data analysis, and preparation of research findings.

691 Seminar (1-5)

Selected topics of current interest in marketing area. *D.*

693 Readings (1-5)

Readings on topics selected in consultation with faculty member. *F, W, Sp, Su; Y.*

697 Independent Research (1-5)

Research under direction of faculty member. *F, W, Sp, Su; Y.*

698 Internship (1-5)

F; Y.

M.B.A. Core Courses (MBA)**601 Core I (18)**

Prereq: full-time M.B.A. program candidate. Business-related subjects delivered in modular format. Consists of 18 cr hrs of modular units taken from the following courses: MGT 660, MIS 600, MGT 635, BA 681, MGT 661, FIN 621, MKT 563, OPN 640, ACCT 631, BUSL 691. Units may be added by the faculty team from other 600-level business courses based on the current business environment. *F.*

602 Core II (18)

Prereq: 601. Modular content of business-related subjects. Consists of 14 cr hrs of modular units taken from the following courses: MGT 662, BA 682, BA 683, FIN 620, OPN 641, ACCT 631. Units may be added from other 600-level business courses based on current business environment. Students must take 4 cr hrs of an elective in addition to the 14 cr hrs of business modules. *W.*

603 Core III (18)

Prereq: 602. Modular content of business-related subjects. Consists of 14 credit hours of modular units taken from the following courses: MGT 663, BA 682, BA 683, FIN 621, MKT 635, MKT 641, OPN 641, BA 698. Units may be added from other 600-level business courses based on current business environment. Students must take 4 credit hours of an elective in addition to the 14 credit hours of business modules. *Sp.*

604 Core IV (18)

Prereq: 603. Modular content of business-related subjects. Consists of 14 credit hours of modular units taken from the following courses: BA 681, FIN 651, MKT 641, OPN 640, MGT 684, BUSL 691, MGT 660. Units may be added from other 600-level business courses based on current business environment. Students must take 4 credit hours of an elective in addition to the 14 credit hours of business modules. *Su.*

Operations Courses (OPN)**510 Production/Operations Management (4)**

Introduction to the management of operations in manufacturing and service industries with emphasis on identifying key problems in the areas of design, planning, and control. The utility of various models and quantitative methods in addressing the problems are illustrated.

Quantitative Business Analysis Courses (QBA)**500 Mathematical Foundations (4)**

Introduction to differential calculus, integral calculus, and linear algebra with economic and business models and application.

510 Statistical Foundations (4)

Introduction to probability theory, statistical distributions, sampling, estimation, testing, and decision theory for economists and business administrators.

691 Seminar (1-5)

Selected topics of current interest in quantitative business analysis areas. *F, W, Sp.*

697 Independent Research (1-5)

Research under direction of faculty member. *F, W, Sp; Y.*

College of Communication

Radio-Television Building 497

Kathy A. Krendl
Dean

The College of Communication offers a variety of graduate programs designed to provide both academic and professional training. The master's degree is offered by the Schools of Interpersonal Communication, Journalism, Telecommunications, and Visual Communication. In addition, the college has a Ph.D. program in the School of Interpersonal Communication and a mass communication Ph.D. program administered jointly by the Schools of Journalism and Telecommunications. Laboratory opportunities are provided through CATVision, a multichannel dormitory cable service; television station WOUB-TV, Channel 20; radio stations WOUB-AM and -FM; a community cable television channel; a modern electronic graphics lab in journalism; and research centers, as well as microcomputer labs, in the various schools. Financial support is available in the form of teaching, research, and graduate associateships in each school. The programs also offer tuition scholarships and a limited number of fellowships.

For detailed information concerning graduate programs and possible financial support, write to the director of graduate studies of the School of Interpersonal Communication, E. W. Scripps School of Journalism, School of Telecommunications, or School of Visual Communication, Ohio University, Athens OH 45701-2979.

Interpersonal Communication

The School of Interpersonal Communication expects its graduates to develop a specialist's depth in the study of human communication, as well as a generalist's perspective. Individualized programs of study are emphasized, though all students are required to complete five required courses listed under each degree program.

The school offers M.A. and Ph.D. degrees. Primary areas of study include interpersonal communication, organizational communication, and rhetorical and communication theory. Emerging areas of emphasis, including intercultural/cross-cultural communications, health communication, and instructional communication, may be selected as primary areas of study in consultation with your advisory committee and with permission of the school's graduate committee.

Admission to graduate study is granted on the basis of recommendations of those familiar with your academic and other work, undergraduate and graduate grade-point average and

class standing, scores on the Graduate Record Examination, submitted writing sample, and experiential and other nonformal learning. International students from non-English speaking countries are required to submit a TOEFL score.

Students with a strong background in communication studies are eligible to be selected as graduate teaching associates. Applicants at both the M.A. and Ph.D. levels are considered for associateships. Graduate teaching associates serve as instructors in basic courses, assist in teaching advanced courses, help with the forensic program, or join faculty in research projects.

Applications for admission are typically reviewed during January, February, and March. In order for an application to receive priority treatment (i.e., to be among the batch of files receiving initial consideration with respect to both entry and financial assistance), the file should be complete no later than **February 1**. The majority of the decisions are made by April 15, with files received after that point at a significant disadvantage.

Admission is typically granted for the fall quarter. Students wishing to begin studies at a different point during the academic year must petition the Graduate Committee for permission.

Master's Program

Earning a master's degree requires that you complete 45 hours plus one of four capstone activities: a thesis, a research paper, a professional project, or master's examinations. Students electing the master's examination option complete all 45 hours in class work. Students electing one of the other three options complete 40 hours in course work with the remaining five hours completed as thesis or research hours.

M.A. candidates must maintain at least a 3.0 g.p.a. in all university work, a g.p.a. of at least 3.0 in all school courses, and no grade below a B- in any course in the program of study.

A maximum of 12 quarter hours of graduate credit with grades of B or better may be accepted by transfer from approved institutions that offer the master's degree, provided the transferred coursework is acceptable to your advisory committee and is not more than five years old. At least 33 hours of graduate credit must be earned on the Athens campus.

All M.A. students are required to take INCO 600 Introduction to Graduate Study, INCO 610 Theories of Communication, INCO 640 History of Rhetorical Theory, one five-credit research methods course approved by their program advisor and committee, and either INCO 618 Seminar in Interpersonal Communication or INCO 630 Organizational Communication.

Doctoral Program

To be admitted unconditionally, you must have received a master's degree or completed equivalent work (as approved by the graduate committee) at an accredited institution. You must present for evaluation by the graduate committee evidence of your scholarly writing ability. Additional evidence of

your ability to pursue study at the doctoral level is required, as documented from previous personal, professional, and academic experiences.

Required for the Doctor of Philosophy are 72 quarter hours of nondissertation credit beyond the master's degree (or its equivalent), demonstration of research competency, and completion of a satisfactory dissertation. A maximum of 16 quarter hours of post-master's degree graduate credit with B or better grades may be accepted by transfer from approved institutions that offer post-master's (doctoral-level) work. Transfer work may not be more than five years old and must be acceptable to the student's advisor and advisory committee, the school's graduate committee, and the associate provost for graduate studies and research. All 16 hours may be applied to the student's primary area; a maximum of eight transfer hours may be applied to the student's related area. At least 48 quarter hours of doctoral credit must be earned on the Ohio University campus. At least three consecutive quarters must be spent in full-time status on the Athens campus.

All Ph.D. students are required to take INCO 600 Introduction to Graduate Study, INCO 610 Theories of Communication, INCO 618 Seminar in Interpersonal Communication, INCO 630 Organizational Communication, and INCO 640 History of Rhetorical Theory.

Interpersonal Communication Courses (INCO)

501 Field Research Methods in Communication (5)

Prereq: 600. Development of research methods such as content analysis, participant observation, Q-analysis, questionnaire design, sampling procedures, case studies, and unobtrusive measures. Y.

510 Cross-Cultural Communication (5)

Analysis of processes and problems of communication as affected by national cultures; effects of differences in languages, values, meaning, perception, and thought. Y.

511 Communicating with People with Disabilities (5)

Examines the implications of communication between physically disabled and able-bodied individuals and groups. Simulated exercises, video presentations, field trips, and outside guest lecturers give reasonable exposure to the disabled community. *Smith*; Y.

512 Principles of Message Analysis (5)

Theory, research, and practice in analyzing human messages produced in natural settings. Survey of various coding methods: type/token ratio, content analysis, discourse analysis, and relational analysis; application of selected techniques to previously generated messages.

530 Communication and the Campaign (5)

Processes of communication as applied in a campaign, defined as any organizational goal-oriented effort designed to influence behaviors of identifiable population. Emphasizes theory application in nonclassroom campaign situations (political, fund-raising, publicity, etc.). Y.

533 Applications of General Semantics (5)

Chief formulations from general semantics and their applications to field of communication.

540 Theories of Argument (4)

Relationship between formal logic and rhetorical systems of arguments; intensive study of fallacies and experimental findings related to study of argument. Y.

542 Responsibilities and Freedom of Speech in Communication (5)

Ethical and rhetorical implications of constitutional guarantees on political, social, and religious speech; analyses of significant legal cases on freedom of expression. Y.

570 Effective Classroom Communication for Teachers and Trainers (4)

Prereq: 1 yr teaching K-12. Focuses on interpersonal communication in classroom environment; emphasis on communication between students and teachers. Taught in seminar format at regional campuses only during summer session. Y.

571 Nonverbal Communication for Teachers and Trainers (4)

Covers nonverbal behavior of teachers and trainers in the classroom. Messages communicated by the classroom environment and how the environment shapes students' learning patterns are also covered. Taught in seminar format; small group activities to develop greater sensitivity to nonverbal communication are provided. Readings. Taught in seminar format at regional campuses only during summer session. Y.

572 Communicating in Your Workplace: Strategies for Teachers and Administrators (4)

Focuses on the problems of communication within an education-oriented organization. Particular emphasis on elements that help or delay the adoption of change, conflict management, and practical knowledge and skill for communicating successfully in an educational setting. Taught in seminar format at regional campuses only during summer session. Y.

573 Effective Listening and Small Group Communication for Teachers and Trainers (4)

Focuses on steps to more effective listening and working in small groups for teachers and trainers. Familiarizes teachers and trainers with the keys to active listening, the stages of group development and decline, how to manage groups, and improve their cooperation and productivity. Taught in seminar format at regional campuses only during summer session. Y.

574 Family Communication for Teachers and Trainers (4)

Explores issues of family communication for classroom teachers and organizational trainers. The definitions and nature of contemporary families are explored. Children's view of the family and peer relationships are highlighted. Conflict, stress, decision making, and problem solving are discussed. Special activities for the teacher and trainer are provided. Taught in seminar format at regional campuses only during summer session. Su; Y.

600 Introduction to Graduate Study (5)

Definition of field of communication, methods of structuring field, and research concerns within areas of field. Examination of theory and function of research. Analysis of representative types and methods of research. Y.

601 Measurement Methodology in Communication (5)

Measurement principles, instruments, and techniques in communication; problems and procedures in testing, measuring, and evaluating communicative attitudes and skills; development and availability of relevant standardized tests. Y.

610 Theories of Communication (5)

Survey of contemporary communication theory, emphasizing cross-disciplinary contributions to such theory. Y.

611 Language and Symbol Systems (5)

Role of verbal and nonverbal signs and symbols in communication. Emphasizes human symbolizing capabilities and relationships between symbolic structures and physical reality. Y.

612 Communication in Social Conflict (5)

Roles of communication in conflict and conflict in communication. Communication strategies for reducing or managing conflict in social situations. Y.

613 Communication and Persuasion (5)

Process of communication and attitude change, survey of general theories and typical research, analysis of contemporary persuasion. Y.

614 Negotiation and Mediation (5)

Explores communication dynamics involved in negotiating and mediating interpersonal and organizational disputes. Examines research and ethical issues relevant to communication within the contexts of negotiation and mediation. Y.

618 Seminar in Interpersonal Communication

Provides advanced graduate students with opportunity to identify and analyze basic components of dyadic communicative system including multivariate nature of both relationships and effects. Y.

620 Nonverbal Communication (5)

Survey of major theories and research areas in field of nonverbal communication. In-depth analysis of research in areas of student interest. Y.

621 Gender and Communication (5)

Prereq: 600 or equiv. Explores variations in communicative behaviors related to biological sex and psychological gender. Examines female and male communication in intrapersonal, interpersonal, small group, public, and organizational settings. Y.

622 Communication in the Family (5)

Prereq: 600 or perm. Examination of the communication concepts that are basic to understanding interaction in the family. Provides a framework for analysis of family communication. Explores communication issues that relate to conflict, power, intimacy, and the development of relationships. Presents a model of effective communication in the family. Consideration of verbal and nonverbal communication behaviors. Y.

630 Communication in Organizations (5)

Introduction to organizational communication. Specific objectives include development of historical progress, examination of major research issues such as information flow, network analysis, communication overload and underload, exploration of theoretical foundations in organizational decision making, superior-subordinate communications, organizational effectiveness, and change processes. Y.

631 Communication Audits in Organizations (5)

Examination and discussion of literature covering methods of assessing communication in organizations. Designed to give students practical skill development through actual assessment, data analysis and interpretation, and client report preparation. Y.

632 Instructional Training and Development in Communication (5)

Includes philosophies of organizational development; theories of instructional design, emphasizing stages of planning implementation, and evaluation; and communication training skills, including needs assessment and evaluation, writing objectives, application of communication content, and selection of instructional modes and resources—all investigated within business, professional, and governmental organizational contexts. Y.

640 History of Rhetorical Theory (5)

Covers main concepts and principal figures in the history of rhetorical theory. Begins with classical Greece and ends with postmodernity. Y.

642 Modern Rhetoric (5)

Aims, tasks, and significance of rhetoric in relation to human communication processes. Distinctions among speculative, critical, canonical, and performative perspectives in rhetorical inquiry. Y.

643 Religious Rhetoric (5)

Pulpit oratory examined through analyses of selected clerics including Luther, Wesley, Whitefield, Beecher, Brooks, Fosdick, Sunday, Graham, and others. Rhetorical analysis of revivalism, camp meetings, social gospel, and ecclesiastical and polemic debates. Y.

644 The Rhetoric of Protest and Reform (5)

Rhetorical analysis and criticism of speaking during reform and revolutionary protest movements. Selected areas include American Revolution, antislavery debates, Populists, Progressives, labor unrest, women's rights, and civil rights agitation. Y.

645 The Rhetoric of the World Wars (5)

Analysis and criticism of wartime communication, its principal modes, techniques, media, and effects. Theory and practice as reflected in WWI and II.

646 Analysis and Criticism of Legal Rhetoric (5)

Analysis and criticism of principal modes, types, and styles of western legal rhetorical communication as mirrored in selected cases, jurists, attorneys, decisions, and arguments, with western legal communication studies as unique mode of rhetoric focusing upon English-American jurisprudence and courtroom advocacy. Case study method employed. Critical analysis accomplished.

647 Analysis and Criticism of Political Rhetoric (5)

Analysis and criticism of principal modes, media techniques, and effects of western political rhetorical communication. Theory and practice as reflected in major campaigns, administrations, and movements in both open and closed societies.

650 Foucault, Discourse, and Social Change (5)

The overarching goal of this seminar is to develop a clearer sense of what it means to have rhetorical agency in a postmodern world. In moving toward that goal, we will interrogate Foucault's work that bears on the themes of discourse, knowledge/power, subject, and space. While not an exhaustive account of Foucault's work, the literature to be examined will provide a sufficient grounding in Foucault's project to allow for critical assessment of the strengths and weaknesses of his perspective as it relates to the problem of rhetorical agency.

690 Independent Study (1-15)

Readings on special problems under planned program approved by advisor. Projects must be approved prior to registration.

691 Internship (1-15)

Prereq: written proposal and perm. Experience in communication-related activities in organizational environments.

694 Research (1-12)

Prereq: perm. Individual research on special problems. Projects must be approved prior to registration.

695 Thesis (1-15)**701 Research Designs in Communication (5)**

Prereq: 601. Nature and selection of communicative research problems; development of strategies, techniques, and appropriate designs; critical evaluation and development of experimental and descriptive procedures. Y.

702 Communication Historiography I (5)

Prereq: 600. Bibliographic, analytical, and interpretive skills for dealing with published primary source materials, including letters, speech texts, and audiovisual recordings in their historical contexts. Designed to help students become skillful library users, situate a research problem in context, and analyze primary historical materials. Y.

703 Communication Historiography II (5)

Prereq: 702. Techniques for research using archival material: transcripts, unpublished speeches, letters, diaries, artifacts (e.g., scrapbooks, museum exhibits), memoirs, manuscripts. Readings exemplify a variety of historical philosophies. Students research an original problem of their own definition within the theme of the quarter; the writing of conference papers is encouraged. Course builds on the pedagogical skills introduced in 702 by developing the ability to critique bibliographies, argumentation, and prose style. Y.

704 Qualitative Research: Ethnography of Communication and Conversational Analysis (5)

Provides students with an understanding of how to conduct communication research projects using two qualitative research methodologies that stress the collection and analysis of naturalistic data—ethnography of communication and conversation analysis. Students will learn to design and implement communication studies using ethnography of communication and conversation analysis. *Sp; Y.*

710 Communication and Information Diffusion (5)

Analysis of major approaches to data and information diffusion systems on local, regional, national, and international levels. Emphasis on acquisition analysis and dissemination of data as information, including critical points of interface and interaction between a system and its users. *Y.*

721 Communication Process in Small Groups (5)

Theory and research in group social system, group modification of individual judgment, leadership styles, group vs. individual goals, and intragroup lines of communication in small problem-solving and learning groups. *Y.*

722 Listening Behavior: Theory and Research (5)

Analysis and evaluation of listening process in terms of theory, research, and operational characteristics. *Y.*

730 Communicative Process in Organizations (5)

Prereq: Ph.D. student. Interaction between organizational structure and communication within organizations. Emphasis on theoretical and methodological analysis. Primary focus on conducting major research project. *Y.*

733 Organization Communication Consulting: Foundational Perspectives (5)

Prereq: Ph.D. student. A focus on theoretical perspectives to organizational communication consulting and organizational development. Review of theory and research on communication training, consulting practices, communication variables involved in the client/consultant relationship, as well as intervention techniques. *Y.*

740 Rhetorical Criticism (5)

Theories and methodologies of selected modern critics. Exploration of interdisciplinary dimensions in criticism of rhetorical interactions. Class and individual projects. *Y.*

745 Rhetoric and Popular Culture (5)

Seminar exploring the relationship between rhetoric and popular culture. Surveys major theoretical approaches (i.e., cultural studies, interpretivism, and genre) and emphasizes the application of theory through writing and criticism. *Y.*

780 Topics in Communication (1-5)

Communication topics of interest to faculty and students not covered by regular classes. Each offering will consider a different topic on one-time-only basis. May be repeated. *Y.*

790 Interdisciplinary Seminar (3-12)

794 Research (3-12)

Prereq: perm. Individual research on special projects. Projects must be approved prior to registration.

895 Dissertation (1-24)

Journalism

The E. W. Scripps School of Journalism offers a Master of Science degree and, in cooperation with the School of Telecommunications, a Doctor of Philosophy degree in mass communication (see following section).

Admission is based on your academic and professional background. To assist the school in evaluating your qualifications, you must submit your scores on the Graduate Record Examination, a resume, three letters of recommendation, official transcripts from all colleges attended, and a statement of 500 words or less about why you want to attend graduate school. International students from non-English speaking countries are required to submit a TOEFL score. You need not have an undergraduate major in journalism.

Anyone seeking financial aid for the following academic year should apply as early as possible.

The master's program is designed to provide opportunities to study professional journalism or prepare for further academic work. Required coursework in both areas is a blend of professionally oriented classes with mass communication principles, theory, and research.

The flexibility of the program allows professionally oriented students to specialize in newspaper, magazine, or broadcast journalism; public relations; advertising; or visual communication. The master's program requires 49-53 hours and usually involves 15-18 months for completion. Required courses are:

Master's Degree Core: JOUR 501, 511, 512, 803, and 806.

Advanced Research (choose one): JOUR 808, 811, 816, 821, or 830.

Topics Seminar (choose one): JOUR 635, 812, 814, 815, 850, 866, or 871.

Research (choose one): A thesis, for six hours' credit, involving a carefully designed research project conducted in the traditional academic format; a

professional project of publishable quality, for six hours' credit; or a readings option for one hour credit.

In addition, you are required to take undergraduate reporting, editing, and graphics if you have not previously taken such courses. Graduate credit will not be earned for these courses. A graduate electronics publishing course may be substituted for the graphics course.

Some required courses may be waived if you present evidence that you have completed equivalent coursework or have equivalent professional experience. If required courses are waived, other graduate courses must be taken to make up the number of hours.

You are required to maintain an accumulative grade-point average of at least 3.0. Only graduate credits with a grade of B- or above will count toward a degree.

Journalism Courses (JOUR)

501 Introduction to Graduate Study (1)

Required of all new graduate students. *Washburn; F; Y.*

507 Electronic Publishing (4)

Prereq: 221, 231. Introduction to the production, design, and techniques of electronic publishing using a journalistic approach. Explores many software packages for electronic publishing using Macintosh computers and provides experiences to develop a thorough knowledge of electronic publishing. *Pittman; F, W, Sp, Su; Y.*

511 Newspaper and Communication Law (3)

Principles and case studies in communication law, constitutional guarantees, libel, privacy, contempt, privilege, copyright, and government regulatory agencies. *Dashiell, Evarts; W, Su; Y.*

512 Ethics, Mass Media, and Society (3)

Ethics and social responsibility of journalists or other mass communicators. Professional codes, responsibility of media for social change, reaction to political and economic pressures. *Bugeja, Haggerty, Lambert; F, Su; Y.*

521 Graphic Production Processes (5)

Advanced study of all processes for reproducing printed communication. Theory and lab. *Hodges; D.*

522 Advertising Production (4)

Techniques and problems in methods of advertising production. *Richardson; F.*

524 Direct Response Advertising (3)

Introduction to the scope of direct marketing and direct response media, including direct mail, broadcast and print advertising, catalogs, co-ops, telemarketing, inserts, and video cassettes. *D.*

525 Photojournalism (3)

Basic principles and practices of photojournalism for newspapers, magazines, and television. Students shoot, process, and print pictures on assignment. *D.*

526 Advanced Photojournalism (3)

Prereq: 525. Continuation of 525. D.

530 Magazine Editing and Production (4)

Prereq: 221. Theory of magazine editing, production, and publishing with lectures on various types of magazines available today and analysis of audiences they serve. Formulas for publishing, editorial content, and article selection; illustration and layout; and technical procedures including sales. Each student prepares a dummy magazine of his or her own design. *Bernt, Bugeja, Hodges, Westfall; F, W, Sp, Su; Y.*

531 Magazine Editing and Production Practice (3)

Prereq: 430 or 530. Practice course in which students apply their knowledge to production of quarterly magazine done regularly by School of Journalism. Each student assigned specific position on magazine. *Bernt, Westfall; F, W, Sp; Y.*

532 Specialized Business Magazines (3)

Prereq: 531. Career opportunities in magazine journalism revealed by in-depth studies of professional, business, and industrial magazines. Course considers publishing problems through case studies. *Bernt; F, Y.*

535 Picture Editing (3)

Principles and practices of picture editing. Includes consideration of picture sources, assignment, and handling; photographic techniques and aesthetics; legal and ethical factors; visual idiosyncrasies of various media. D.

536 Advanced Picture Editing (3)Prereq: 535. Continuation of 535. *W, Sp; Y.***541 Magazine Feature Writing (4)**

Writing and marketing factual magazine feature articles of various types. Finding subjects, researching, writing articles, and surveying markets. *Bugeja, Westfall; F, W, Sp, Su; Y.*

542 Advanced Magazine Feature Writing (3)

Writing and marketing magazine articles. Emphasis on specialized markets and new trends in industry. Students attempt actual assignments for magazines nationwide. *Bugeja, Haggerty, Westfall; W, Sp, Su; Y.*

543 Advanced Magazine Editing (3)

Prereq: 531. Students edit real manuscripts, from the how-to to personal narratives. They learn to recognize weaknesses, devise solutions, and interact with writers. Ethical dilemmas posed by more experimental forms of magazine journalism also are covered. *Sp; Y.*

550 Advertising Copy Writing (3)

Effective persuasion in print and broadcasting. *Helitzer, Peters, Richardson; F, W, Sp, Su; Y.*

552 TV Newsfilm Production and Editing (3)

Principles and practices of TV newsfilm production and editing. *F, W, Sp; Y.*

555 Seminar in Broadcast News (3)

Discussion of problems—operational, social, economic, legal, and ethical—faced by broadcasters reporting public affairs. *Dashiell, Stewart; F, W, Sp; Y.*

558 TV News Practice (4)

Prereq: 552. Practicum in preparation and presentation of TV newscast. Students select news material including video, format, and script for newscast, then deliver on air. Students rotate through various newsroom positions during quarter. *Stewart; F, W, Sp; Y.*

559 Advanced TV News Practice (3)

Prereq: 552, 558. Advanced practicum in preparation and presentation of TV newscast. Students involved in selecting, editing, scripting, and formatting for on-air newscasts. Students also appear on air and assume management responsibilities. *Stewart; F, W, Sp; Y.*

561 Specialized Journalism (3)

Seminar approach to individual study of journalistic areas of special interest to individual students. D.

564 Reporting of Public Affairs (3)

Problems of preparing in-depth, interpretative, and analytical reports on public affairs for mass media, governmental reporting, and contemporary controversial issues. *Greenwald, Hodson, Izard; F, W, Sp; Y.*

565 The Editorial Page (3)

Editorial page in opinion information. Problems of content selection and presentation. Extensive writing of analytical and persuasive editorials and interpretative articles in depth. *Evarts, Lambert; F, W; Y.*

566 International Mass Media (4)

Development and operations of world mass communication channels and agencies. Comparative analysis of media, media practices, and flow of news throughout world. Relation of communication practices to international affairs and understanding. *Cooper, Kliesch; F; Y.*

567 Foreign Correspondence (4)

Prereq: 231. Graduate course in advanced international reporting for those who have lower-level reporting classes or experience. Students write reports of U.S. for newspapers abroad. Selected students eligible for internships abroad. *Cooper; F, W; Y.*

568 Column Writing (3)

The study of newspaper columnists, past and present, with extensive writing of various kinds of columns. *Lambert; Sp; Y.*

570 Sportswriting (3)

A look at sports writing from lead to 30—the good, the bad, and the ugly of life in a sports press box. Course builds on news writing and editing skills. Offers advice on the art of sportswriting and assignments to practice the art by covering live events. *F; Y.*

571 Public Relations Principles (4)

Prereq: perm. Using contemporary case studies, all aspects of public relations are studied and analyzed in group discussions and written projects. Heavy emphasis on participation in class discussions. *Sloan; F, W; Y.*

572 Advanced Public Relations (4)

Prereq: perm. Planning public relations programs and projects, including selection of audiences, messages and media, and evaluation of effects. Project in area of student's interest. *Helitzer; W, Sp; Y.*

581 Print Media Management (3)

Problems in publishing affecting all departments. D.

582 Broadcast Advertising and Management (4)

Peters, Reese; F, Sp; Y.

583 Magazine Publishing and Management (3)

Prereq: 530. An introduction for editors to the topics of audience, circulation, industry, trends, reposition, and launching of magazines. History of the rise and fall of publishing empires, including the financial, legal, and ethical realities that shaped them. D.

584 Supervising School and College Publications (4)

Conference course for advisors of high school and college newspapers, magazines, and year-books. Problems relating to staff selection, content of publications, copy, layout, photography, printing, advertising, and business phases. D.

585 Journalism in the Secondary School Curriculum (4)

Prereq: 9 hrs journalism. Intensive study and analysis of appropriate content for high school journalism courses. Planning course outlines and curricula. D.

586 Advertising Campaigns (5)

Thorough understanding of basic elements of advertising campaigns. Includes creation of campaign. *Helitzer, Peters, Reese; F, W, Sp; Y.*

601A Graphics of Communication (5)

Creative and practical aspects of typography, layout, and design of printed communication. Does not count toward M.S. or Ph.D. *Hodges, Pittman; F, W, Sp, Su; Y.*

601B News Reporting (4)

Prereq: typing proficiency and English proficiency exam. Methods of gathering and evaluating news and writing typical news stories. Practice work in covering assignments and preparing copy. Does not count toward M.S. or Ph.D. *Haggerty, Lambert, Washburn; F, W, Sp, Su; Y.*

601C News Editing (4)

Prereq: B or better in 601B, English proficiency exam. Copyreading, headline writing, news selection, and layout of newpages. Does not count toward M.S. or Ph.D. *Evarts; F, W, Sp, Su; Y.*

601D Advertising Principles (5)

Major factors in development of advertising programs. Does not count toward M.S. or Ph.D. *Helitzer, Peters, Slater; F, W, Sp; Y.*

601E Photojournalism (3)

Prereq: English proficiency exam or 601B. Basic principles and practices of photojournalism for newspapers, magazines, and television. Includes consideration of roles of photographers and picture editors in communication and their relationships with other members of editorial team and mechanical departments of publications. Students shoot, process, and print pictures on assignment. Does not count toward M.S. or Ph.D. *F, W, Sp; Y.*

635 Seminar in Picture Editing (3)

Study of picture editing practices in newspapers, magazines, and television. *Sp; Y.*

662 Graduate Internship (1–15)

Professional project for students not choosing to do a thesis. *F, W, Sp, Su; Y.*

665 Professional Project (1–15)

Professional project for students not choosing to do a thesis. *F, W, Sp, Su; Y.*

691 Research in Journalism and Communications (1–15)

F, W, Sp, Su; Y.

695 Thesis (1–15)

F, W, Sp, Su; Y.

790 Independent Study (1–4)

Prereq: written proposal. Student can pursue personal scholarly interests under faculty supervision. *F, W, Sp, Su; Y.*

792 Seminar (3–5)

Selected topics of current significance. May be repeated with different topics. *F, W, Sp, Su; Y.*

803 Seminar in Mass Communication Theory (5)
Communication process, interpersonal and mediated, and possible barriers to effectiveness. Review of literature on effects of mass communication on individuals and groups, contrasting channels, and message structures. Media as social and economic institutions. *Culbertson; Riffe; F; W; Y.*

806 Research Methods (5)
Techniques for study of communication content, message sources, audiences, and effects. *Stempel; F; Y.*

808 Legal Research (4)
Prereq: 511. The study of the legal literature relative to First Amendment, including that involving speech, the press, broadcast, and the broad area of social and political communication. Each student learns to use legal reporters and documents. Electronic searching and Shepardizing are taught. Field trips to Columbus are necessary. Each student prepares an extensive legal bibliography in a First Amendment area of interest. *Evarts; D.*

811 Historical Research in Journalism (5)
Research in mass communication history, individual projects and readings, application of historiographic methods. *Washburn; W; Sp; Y.*

812 Government and Mass Communication (4)
Communication and political order. Theory and structure of democratic and totalitarian communication systems, relationships between government and mass communication in modern world. *Evarts; D.*

814 Literature in Journalism (4)
Directed reading and discussion in literature. *Stempel; Su; Y.*

815 Seminar in Theory of Freedom of the Press (4)
Prereq: 511. Historical and philosophical development of concept of free expression and its relationship to development of Anglo-American system of information flow. Contrasting ideologies and their evolution. Implications of these theories in contemporary states. *Izard; D.*

816 Seminar in Mass Media Research (5)
Prereq: 806. Students present research ideas to seminar, discuss progress and problems, report findings, and defend projects before group. Emphasis also on scaling and measurement, nonparametric statistics, research strategy, and nature and function of theory in mass communication research. *Riffe; Sp; Y.*

821 Seminar in Content Analysis (4)
Methods of studying mass media content; individual projects and readings. *Bernt; Sp; Y.*

830 Magazine Research and Development (4)
Investigation into and seminar discussion of role of magazine in American society. Problems of magazine publishing, problems of magazine editing, and structure and nature of magazine industry in U.S. Major research project. *D.*

850 Seminar in Advertising Copy (4)
Human information processing as it affects advertising copy. *D.*

866 Seminar in International Mass Media (5)
Prereq: 566, 803. Directed research and reading applied to problems of international communication and comparative foreign journalism. Each student studies press of selected nations or areas in which he or she has special interest. *Cooper; Kliesch; W; Y.*

871 Public Relations Problems and Programs (4)
Prereq: 571, 572. Overall planning and operation of public relations programs in government, industry, and educational and nonprofit organizations. Analysis and seminar discussion of problems and policies in such institutions. Case method used in conjunction with individual field studies conducted by class members. *Culbertson; W; Y.*

895 Dissertation (1-15)
F; W; Sp; Su; Y.

Mass Communication

The E. W. Scripps School of Journalism and the School of Telecommunications jointly offer a doctoral program in mass communication. Students may work toward a Ph.D. in mass communication with an emphasis on telecommunications, journalism, or mass communication research.

The minimum requirements are a total of 135 quarter hours of graduate work, including up to 50 hours of previous work on the graduate level that has been accepted for transfer. The hours include up to 15 quarter hours of credit for the dissertation; a major of at least 54 quarter hours (other than the dissertation) in mass communication; at least 18 quarter hours in a related area outside the College of Communication; distribution of the remaining hours among courses selected with the approval of a program committee; and either two scholarly disciplines (e.g., statistics, historiography) or intensive proficiency in one scholarly discipline.

In the Ph.D. program in mass communication, students choose their own program of study, with the advice and approval of a program committee, according to needs determined by personal and career goals of the student.

There are minor program differences in the schools cooperating in the mass communication program. The School of Telecommunications offers doctoral sequences in international telecommunications studies, critical studies, and media studies, while journalism focuses on content analysis, audience research, and legal and historical study.

For course offerings, see listings under Journalism and Telecommunications. Detailed program requirements are available from each school.

Ordinarily, new doctoral students are admitted only in the summer or fall. The application deadline is February 15.

Telecommunications

The School of Telecommunications offers programs of study leading to the Master of Arts in Telecommunications and the Doctor of Philosophy in Mass Communication. The Ph.D. is offered in conjunction with the School of Journalism.

At the master's level, students design their own programs of study with approval of a faculty committee. Specializations may include international communication, management, distance education, and screenwriting. The master's program prepares students for careers in broadcasting, cable, multimedia, and related fields.

A specialization in public broadcasting management is also available. It offers training focused on non-commercial radio and television, and provides practical experience through Ohio University's Telecommunication Center and through internships. Associateships are available for women and minorities who have full-time public broadcasting experience.

Admission

Admission to graduate study in Telecommunications requires a baccalaureate degree for the master's program and a completed master's degree for the Ph.D. program. For master's applicants, an undergraduate g.p.a. of 3.0 on a 4.0 scale is expected, although other factors—professional experience or test results, for example—will be considered. Doctoral applicants are expected to present academic credentials of a particularly high academic standard.

Applicants are required to submit letters of recommendation, Graduate Record Examination and/or Miller Analogies Test scores, writing samples, an applicant information form (available from the School of Telecommunications), an application form, and transcripts of all university academic work. The M.A. in screenwriting requires submission of scripts or similar sample material. Applicants should have prior professional or academic experience in electronic media or closely allied fields of communication. However, academic and professional potential as documented in application materials can offset the lack of a strong background in the field. On advice from the school's graduate committee, individuals may be required to make up deficiencies by enrolling in appropriate undergraduate courses or by completing a directed readings program.

All application materials must be received no later than February 15. Applications will be accepted only for fall quarter entry.

Requirements

The non-thesis master's program consists of coursework totaling 56 hours, including a minimum of 20 hours in the major field of study and at least 8 hours in a cognate area. Cognate courses are selected from one or more departments outside the School of Telecommunications and may include courses from more than one department. A thesis option exists for those students with a special interest in academic research.

All master's students are required to take two courses: TCOM 501, Introduction to Graduate Study, and TCOM 601, Introduction to Mass Communication Research. At the end of studies, non-thesis students must successfully complete a comprehensive examination and thesis students must present an approved thesis. Screenwriting students have somewhat different requirements commensurate with their professional writing commitment. Different courses are required, and a completed script portfolio will serve as a thesis.

A minimum g.p.a. of 3.0 must be maintained. Those who earn a grade below a B (3.0) in more than two courses will not be permitted to continue in the program.

Ph.D. requirements are listed under Mass Communication.

Facilities

A variety of laboratory facilities are provided on campus. Examples include CATVision, a multichannel residence hall cable service; public broadcasting stations WOUB AM-FM-TV; partnerships with multimedia and distance education laboratories; the College of Communication's Survey Research Center; and ongoing projects administered by the school's Institute for Telecommunications Studies.

Telecommunications Courses (TCOM)

501 Introduction to Graduate Study (1)
Analysis of scholarship and research as foundation for graduate study. *F; Y.*

513 Studio Audio Production (4)
Special problems in audio production including documentary, live music, and dramatic presentations. *Redefer; W; 1994.*

518 Producing for Video (4)
Developing programs for commercial, public, and corporate television. Covers program research, development, testing of program concepts, and the production process. *Newman; F; W; Y.*

521 Nonbroadcast Video Systems (4)
Examination of the uses of video in business, industry, and other public service organizations. *Flournoy, Wurtsbaugh; F; W, Sp; 1994.*

530 Script Analysis (4)
Analysis of narrative media scripts, programs, and films with special concentration on their construction, audience response, and factors in effectiveness.

531 Screenwriting (4)
Writing and critique of form, structure, and presentation of dramatic programs, series, and films. *Mack, Miller; W, Sp; Y.*

540 Public Telecommunications (4)
Historical development, current status, and challenges to public telecommunications. *Clift, Lewis; W; 1994.*

541 Instructional Telecommunications (4)
Using telecommunications in instruction: radio, television, cable, fiber optics, satellite, computer applications in education. *Krendl; Sp; Y.*

554 Personal Values in Telecommunications (4)
Explores the nature of personal values and surveys the values that have shaped and are shaping American culture. Examines the role of the individual within media institutions and of the media within American culture. *Korn; W; Y.*

561 Telecommunications Financial Management (4)

Consideration of fiscal problems in operation of radio, television, and other telecommunications industries, with special emphasis on economics and financial policies.

563 New Technology (4)

Investigation of emerging technologies of telecommunications via broadcast, cable, satellite, telephone, and information systems. *Flournoy, Slade; Sp; Y.*

564 Cable Communications (4)

Critical examinations of cable industry including technical aspects; franchising; programming; local, state, and federal regulation; and public interest service. *Clift, Richie; F, Sp; 1995.*

565 Satellite Communications (4)

Prereq: sr. Role of satellites in global communications from historical, technical, regulatory, economic, political, and programmatic perspectives.

566 Technology, Communication, and Culture (5)

Examines the ways in which communication technologies shape and structure a culture and the ways in which a culture, in turn, uses these technologies first to stabilize and second to discover meaning.

568 Action Research (5)

An experiential and interactive approach to optimizing human resources and enabling groups, organizations and communities, in development and business, to improve their functioning, develop continuing problem-solving and team building abilities, and produce organizational and social change.

575 Politics and the Electronic Media (4)

Examines complex relationships between electronic media and political process through study of campaign strategy, polling, commercial advertising, and news coverage. *Mould, Sandell; F, Sp; D; 1994.*

581 Women and Media (4)

Examines representation of women in media through experiential exploration of individual attitudes and values with respect to culture, sexism, and analysis of media content. *Miller, Pecora, Sandell; W, Su; 1994.*

582 Documentary Genres (4)

Explores the various genres of documentary video and film with a particular emphasis on television documentary and recent video works. Deals with such topics as historical development, factuality and truthfulness, objectivity, and ethics. Assignments and discussion are based on an extensive schedule of screenings. *Korn, Cromwell; F; Y.*

586 Colloquium in Telecommunications (1-5)

Intensive study of special topics in field of telecommunications. *F, W, Sp, Su; D; 1994.*

601 Introduction to Mass Communication Research (5)

Examines historical, economic, political contexts in which quantitative and qualitative research emerges. Includes introduction to current quantitative and qualitative techniques. *F; Y.*

602 Quantitative Research (5)

Mass communication measurement techniques, research design and implementation, survey, content analysis, and applied statistical analysis. *Sp; Y.*

603 Qualitative Research (5)

Introduction to qualitative research methodology with an emphasis on phenomenology, semiology, and ethnographic fieldwork. *Nelson, Pecora; W; Y.*

610 Audio and Video Production (5)

An introductory course for graduate students lacking production experience. Covers audio and video theory and terminology and production planning. Provides experience in audio and video production. *Mould, Richie; W.*

632 Professional Screenwriting (5)

Advanced writing course in which the experienced student creates substantive scripts in documentary and dramatic areas. *Miller, Mack; F, W, Sp; 1994.*

694 Independent Study (1-12)

Individual research on special problems. Projects must be approved prior to registration. *F, W, Sp, Su; Y.*

695 Thesis (1-10)

F, W, Sp, Su; Y.

705 Research Internship (1-9)

Prereq: acceptance by competition only. Provides opportunity to implement and complete major research study under supervision. *F, W, Sp, Su; Y.*

750 Economics of Telecommunications (5)

Economic structure of broadcast and cable industries; their relationships with other industries; fiscal policies and practices; sources and control of revenue, profit, and expenses. Case studies in economic problems and practices. *W; 1987.*

751 Telecommunications Management (5)

Consideration and examination of theory and practice in telecommunications management, organization, personnel management, and motivation; examines role of manager in relationship to various telecommunications operations. *Clift; F; 1993.*

753 Telecommunications Law and Regulations (5)

Sociopolitical control of telecommunications; effect of laws, regulations, and public pressures upon policy. *Brown; W; 1993.*

755 Broadcast and Cable Programming (5)

Programming concepts, resources, costs, selection, and scheduling. *Sp; 1993.*

757 Broadcast and Cable Sales Management (5)

Problems and practices of broadcast and cable sales and sales management; policy formation including projects devoted to commercial inventory and rate structure. *D; 1985.*

759 Audience Research (5)

Various methods, techniques, and applications of audience study in broadcasting and cable; includes study of current rating services. *Su; Y.*

767 Comparative Systems of Telecommunications (5)

Telecommunications systems of selected countries studied in terms of political, social, economic, and cultural themes. *Flournoy, McDaniel; W, 1993.*

769 International Telecommunications (5)

Development, impact, and control of international telecommunications for propaganda, commercial, and social purposes. *Cambridge, Flournoy; Sp, 1994.*

770 Mass Communication Theory (5)

Examines diverse midrange theories in mass communication including media dependency, cultivation, uses and gratifications, social learning, and media effects. *Cambridge, Pecora; F; Y.*

771 Social Impact of Mass Communication (5)

Examination of the literature on effects of mass media upon society with particular reference to highly attracted individuals and groups; includes study of relationship of research to policy-making process. *Sp; Y.*

772 Critical/Cultural Theory (5)

Prereq: 770. Critical and cultural approaches to theorizing about mass communication in a mediated society. Emphasis on such contemporary theories as semiotics, deconstruction, feminism, and postmodernism. *Miller, Nelson; W; Y.*

779 History of Broadcasting (5)

Origin of U.S. system of radio and television communication and its development to present. *Cromwell, Slade; Sp; Y.*

784 Television Criticism (5)

Survey of contemporary theories and methods of critical analysis including semiotics, feminism, and reader response. Screenings include past, present, avant-garde, and mainstream television programs. *Cromwell, Nelson, Slade; Sp; 1994.*

804 Seminar in Mass Communication Research (5)

Intensive study of research methodologies in mass communication scholarship; individual projects. *D; 1994.*

843 Seminar in Pedagogy (5)

Problems, methods, and techniques of teaching college-level telecommunications. *Sp; Y.*

865 Seminar in International Telecommunications (5)

Problems in sociopolitical control of telecommunications related to developing systems of other nations and international implications of technological development of telecommunications. *1994.*

884 Seminar in Criticism (5)

Intensive examination of video as aesthetic and cultural form. Analysis and practice of video criticism. *Sp; Y, 1994.*

894 Independent Study (1-12)

Individual research on special problems. Projects must be approved prior to registration. *F, W, Sp, Su; Y.*

895 Dissertation (1-12)

Staff; F, W, Sp, Su; Y.

Visual Communication

The School of Visual Communication offers a program of study leading to the Master of Arts in photography with a specialization in visual communication.

The M.A. requires at least 45 quarter hours of graduate coursework. Students can concentrate in either photographic communication (photojournalism, multimedia, and documentary) or photographic illustration (product, editorial, and/or fashion). Requirements include a thesis project, VICO 522, and 30-34 hours in the major field of study. A progress review is held at the end of the first quarter of study.

Application

To apply, you should have a 3.0 undergraduate grade-point average (g.p.a.) on a 4.0 scale, although other factors—professional experience, portfolio, or test results, for example—may qualify you for admission if your g.p.a. is lower. Submit completed application forms, the application fee, and two official transcripts from each postsecondary institution attended to the Office of Graduate Student Services, Ohio University, Wilson Hall, Athens OH 45701-2979. International students from non-English-speaking countries are required to achieve a TOEFL score of 600. You must also submit three letters of recommendation, a resume, a non-returnable slide portfolio of your work, and a statement of 500 words or less about why you want to attend graduate school to the graduate program chair, School of Visual Communication, Ohio University, 301 Seigfred Hall, Athens OH 45701-2979. The final date for application is March 1. Materials should be sent well in advance of the due date; only complete applications are considered. A campus visit prior to the March 1 application deadline is strongly recommended.

Financial Aid

The school awards a limited number of graduate assistantships and tuition scholarships. Selection is competitive and based upon openings and funding. You must maintain a 3.0 g.p.a. to retain support. To be considered, mark the appropriate item on the application for graduate admission.

See the financial aid section for information on financial aid programs available through the Office of Student Financial Aid and Scholarships.

For Further Information

Write to the graduate program chair, School of Visual Communication, Ohio University, Seigfred Hall, Athens OH 45701-2979, or visit the school's Web site: <http://www.viscom.ohiou.edu>.

Visual Communication Courses (VICO)

501 Aspects of Photo Communication (5)

Develops skills in visual perception, technique, and visual communication. Repeatable up to 20 hours but does not count toward M.A. or M.S.

511 Informational Graphics (5)

Deals with visual presentation of quantitative and spatial information. Covers the planning, design, and computer preparation of charts, graphs, diagrams, and maps for use in newspapers and magazines.

512 Advanced Informational Graphics (5)

Prereq: 511. Visual presentation of spatial information with emphasis on design and production techniques as they pertain to newspapers and magazines.

514 Desktop Publishing (4)

Prereq: perm. Introduction to the production, design, and technique of desktop publishing. Demonstrates the use of various desktop publishing, drawing, and word processing software in exploring the unlimited flexibility of self-publishing with microcomputers.

520 Topic Seminar (2)

Prereq: M.A. student. A flexible format for examining current and future topics in visual communication. Because of constantly changing trends in the profession, topics vary as an area of need not covered in an existing class is identified. Topics include such areas of rapid change as technology, techniques, ethics, and aesthetics.

521 Documentary/Essay (5)

Prereq: 586. The use of still photography as a tool for social, anthropological, and journalistic investigation of contemporary issues. Using methods defined by traditional field researchers, the class expands the use of the photograph for collection and interpretation of selected subjects.

522 Graduate Seminar (1)

Prereq: M.A., M.S. students only. Deals with such topics as ethics, current trends, internships, information from recent visits to newspapers or meetings. Professionals visiting campus are also asked to speak on topics concerning the visual communication profession.

523 Publication Layout and Design (3)

Prereq: JOUR 536. Examines historic and contemporary theories of layout and makeup design. Using computer systems that simulate pagination programs, students investigate methods of combining type, graphics, and photographs on the printed page.

526 Advanced Publication Layout and Design (3)

Prereq: VICO 523. Advanced study in the use of computers as a tool for layout, design, and pagination for print media.

527 Advanced Photographic Illustration: Business Practices (5)

Prereq: M.A. illustration majors only. An investigation of the principles of studio management. Areas of study include copyright, computer use, self-promotion, and financial management.

528 Advanced Photographic Illustration: Studio Practices (5)

Prereq: M.A. illustration majors only. Advanced studio methods in the design and execution of illustration images. Particular emphasis placed on the professional performance in producing images using advanced equipment and techniques.

529 Advanced Photographic Illustration: Applications (5)

Prereq: M.A. illustration major. A synthesis of business and photographic skills. Students given simulations based on a complete project concept that reflects the realities of working professionally.

570 Advanced Graphic Management (4)

Prereq: 511 or 514. Planning, configuration, and maintenance of computer and communication systems used in the graphic arts industry. Surveys electronic production methods and examines technical and practical issues of graphics computers, peripherals, applications, and system software.

571 Digital Imaging (4)

Prereq: 511 or 523. Advanced class introducing the computer as a tool for digital alteration of images to create composite and altered photographic images. Uses Macintosh computers and production-quality scanners to alter and manipulate photographic images for creative and illustrative presentation.

573 Interactive Media (4)

Prereq: 570. Introduction to planning, media integration, and production techniques and tools of interactive multimedia. Through practical exercises, exposes students to major component media including computer text, graphics, photography, animation, speech, sound, and video. Technical and human interface issues are also covered.

586 Advanced Photographic Reportage I (4)

Prereq: M.A./M.S. Advanced visual production work in newspaper photographic reportage with particular emphasis on the picture story or photographic essay. This documentary photojournalism class uses a wide range of color and/or black and white material. Finished projects incorporate the use of computers and scanned images for final portfolio production.

587 Advanced Photographic Reportage II (4)

Prereq: 586. Advanced visual production work in magazine design, with particular emphasis on the picture story or photographic essay. Use of a wide range of skills to produce a prototype magazine publication. Demands audience research, visual content focus, field research, photography, writing, design, and production. Involves the use of computers and film scanners for production.

588 Advanced Photographic Reportage III (4)

Prereq: 587. Advanced visual photographic production using time-based media (slide shows and CD-ROM), with particular emphasis on the picture story or photographic essay. This documentary photojournalism class uses a wide range of photographic materials. Finished projects incorporate the use of computers and scanned images into time-based visual presentations.

691 Individual Study (1–5, max 15)

Prereq: written proposal. Individual course of study agreed upon with the permission and guidance of a department faculty member.

College of Education

Graduate study and research in the College of Education place primary emphasis on bridging the gap between theory and practice—between research and the everyday educational and human problems that confront students, teachers, counselors, curriculum workers, administrators, and other professionals in related fields. Practice and internships coupled with research constitute the components of our advanced programs. Interdisciplinary study is encouraged when appropriate.

McCracken Hall

James Heap
Dean

Glenn Doston
Associate Dean

Bonnie Beach
Assistant Dean

Master's students may attend full or part time; there is no residency requirement for a master's degree. Full-time students can complete most master's programs in a minimum of four academic quarters. Doctoral programs require a three-quarter continuous residency on the Athens campus and can be completed in a minimum of three academic years.

All professional education programs are fully accredited by the National Council for Accreditation of Teacher Education (NCATE). The Counselor Education Program is accredited by the Council for Accreditation of Counseling and Related Educational Programs (CACREP) and CORE.

Detailed information concerning graduate programs is available from the Office of Graduate Studies, College of Education, Ohio University, McCracken Hall 124, Athens OH 45701-2979.

Master's Programs

To major in a given area, you must have a program of study planned and approved by a faculty advisor to meet your professional needs and objectives.

The minimum number of credit hours varies depending on program requirements and, when applicable, standards for certification. Specific admissions criteria for admission and program requirements are available from the Office of Graduate Studies, College of Education.

Master's programs are offered in several areas of professional education:

Department of Counseling and Higher Education

College Student Personnel
Counselor Education (school, community and rehabilitation counseling)

Higher Education

Department of Educational Studies

Computer Education and Technology
Cultural Studies in Education
Educational Administration
Educational Research and Evaluation

Department of Teacher Education

Adolescent to Young Adult Education
 Elementary Education
 Mathematics Teaching at the
 Adolescent to Young Adult Level
 Middle Child Education
 Reading Education
 Special Education
 Talented and Gifted

Doctoral Programs

Advanced preparation leading to the Ph.D. or Ed.D. is offered in the College of Education.

If admitted to a doctoral program, you are expected to apply for admission to advanced studies after two quarters of coursework. Admission is based on review of your progress, faculty recommendations and completion of at least nine hours of course credit.

Doctoral candidates are required to successfully complete a written and oral comprehensive examination and an acceptable dissertation.

You are assisted throughout your program of study by a faculty advisor and a doctoral program committee.

Specific information regarding criteria for admission, financial assistance, scholarships, etc., is available from the Office of Graduate Studies, College of Education, McCracken Hall 124.

Department of Counseling and Higher Education

Counselor Education (Ph.D.)
 Higher Education (Ph.D.)

Department of Educational Studies

Curriculum and Instruction:
 Instructional Technology (Ph.D.)
 Educational Administration (Ed.D.)
 Educational Research and Evaluation (Ph.D.)

Department of Teacher Education

Curriculum and Instruction (Ph.D.)
 (curriculum and instruction, math education, middle level education, reading and language arts education, social studies education, special education, supervision)

Note: If you have earned a master's degree in education at Ohio University and plan to take additional coursework in education, you must reapply for admission through the Office of Graduate Student Services.

Alternative admission may be granted if you do not meet the required grade-point average or test score on one of the required standardized tests.

Alternative admission may be based on the achievement of a compensating test score, successful completion of an interview with program area faculty, or such factors as extensive work experience or outstanding recommendations.

Department of Counseling and Higher Education

The Department of Counseling and Higher Education (CHE) prepares students for professional positions in schools, colleges, and community agencies. Graduates function in a variety of roles, including administration, supervision, counseling, consultation, teaching, and research. Programs are designed to meet state licensing requirements where applicable, in addition to providing flexibility to meet specific student interests and competency needs.

To pursue graduate study in the Department of Counseling and Higher Education, you must meet established graduate requirements and be accepted by the appropriate program faculty.

If you are an applicant for a master's degree program and do not have a 2.9 overall (4.0 scale) or a 3.25 g.p.a. on the last 90 quarter hours (4.0 scale), you are required to submit scores from the verbal and quantitative Graduate Record Examination (GRE).

If you are applying for a doctoral program, submit the results of the GRE (verbal and quantitative).

Applicants at all levels must submit letters of recommendation and an autobiography, and may be required to appear for interviews. Ph.D. applicants are required to take a writing exercise at the time of the admission interview.

If you are considering graduate work in CHE, arrange to complete the application process well in advance of the quarter in which you expect to begin study. If you have not taken the GRE within the past five years, note that this examination is administered on specified dates and that the interval between administration and receipt of scores is ordinarily six weeks. You also may take this exam by computer at selected locations for a faster turn-around time.

You may apply for scholarships, graduate associateships, and fellowships. If you are accepted for a graduate associateship, you will do research or be assigned teaching responsibilities in the College of Education, other departments in the University, or other institutions or agencies outside the University.

Further information regarding programs and admissions procedures is available from the Department of Counseling and Higher Education, McCracken Hall, Ohio University, Athens OH 45701-2979, telephone 740-593-4440.

Counselor Education (EDCE)

Programs in community counseling, rehabilitation counseling, and school counseling are offered leading to graduate degrees in counselor education. Within these programs, you may emphasize courses and fieldwork leading to a professional counseling career in elementary, middle, or secondary schools; college counseling; business and industry; chemical dependency; agency work; or private practice. Doctoral-level work also leads to supervisory and university faculty positions.

The community counseling program is designed for those interested in professional counseling services in a community mental health center, in private practice, or in other agencies or business settings that provide health and social services.

The program meets academic requirements necessary to become licensed in Ohio as a Professional Counselor (PC) with the option of completing the additional academic hours for a clinical endorsement in mental health counseling (Ohio Professional Clinical Counselor, PCC). It also meets academic and experience requirements for becoming a National Certified Counselor (NCC).

The rehabilitation counseling program meets the needs of personnel presently employed in public and private rehabilitation agencies, as well as graduates in such areas as psychology, sociology, education, and human services. Upon completion of the program, you will have met PC and NCC academic requirements and may sit for the examination to become a Certified Rehabilitation Counselor (CRC).

The school counseling program is for those who wish to practice as elementary or secondary school counselors. It meets the academic and counseling experience requirements to receive state Department of Education certification as a school counselor in Ohio and most other states, and also meets academic requirements for PC and NCC. School counselors in Ohio must be certified to teach in Ohio public schools and have teaching experience.

Master's degree programs consist of a minimum of 72 quarter hours of study and can be completed in six to eight quarters of full-time attendance, depending upon the area of concentration. Many core courses are offered during the summer, and many late afternoon and evening classes are available during the regular academic year to accommodate students with full-time employment. Along with a counseling practicum (120 work experience hours), two quarters of required internship (600 total work experience hours) provide extensive experience. Ohio licensing as a PC or PCC requires an additional 18 hours for a total of 90 quarter hours.

The doctoral program in counseling is psychological in content, experience, and nature. Ph.D. specializations are available in counseling, counselor education, supervision, and research and evaluation. The courses of study combine personal growth, theoretical foundations, research methodology, and relevant practical experience. They are designed on the basis of the specialty sought and the background you bring to the program. The array of courses included in the curriculum may be used to meet the requirements for professional certification or licensure. It is your responsibility, however, to consult the credentialing agencies to determine their exact requirements. Be aware that such credentialing agencies periodically change their qualification requirements. The program requires a minimum of 135 quarter hours beyond a bachelor's degree and 90 quarter hours beyond a master's.

Approximately 25 to 35 M.Ed. students and 8 to 14 Ph.D. students are admitted each year. Academic credentials, experience, and compatibility of personal characteristics and professional goals with advanced study in the field of counseling and counselor education are all taken into consideration in the evaluation process. You may apply for admission at any time, but priority will be given to those applications completed prior to March 1 since admissions and financial aid decisions are made early in the spring for summer or fall quarter entry.

Undergraduates interested in such work will find knowledge in the areas of the behavioral and social sciences, including psychology, education, sociology, and communications, most helpful. Those interested in school counseling will be required to have teaching certification and teaching experience for work in Ohio and many other states.

All degree programs in counselor education are nationally accredited. Community counseling (M.Ed.), school counseling (M.Ed.), and the Ph.D. program in counselor education and supervision are accredited by the Council for Accreditation of Counseling and Related Programs (CACREP); the M.Ed. rehabilitation program is accredited by the Council on Rehabilitation Education (CORE); and all College of Education programs, including counselor education, are accredited by the North Central Association of Colleges and Secondary Schools and the National Council for Accreditation of Teacher Education. Such accreditation can be advantageous in gaining professional credentials and employment after graduation.

For further information, contact the coordinator of counselor education.

Counselor Education Courses (EDCE)

520 Elementary School Counseling (4)

Rationale, scope, and nature of elementary school guidance; multiple approaches to provision of guidance services with emphasis upon role of elementary school counselors in child study counseling, consultation, classroom group guidance and coordination, and curriculum development. *Hazler; F; Su; Y.*

521 Counseling, Teaching, and the Behavior Change Process (5)

Theories of behavior-change process in educational, community, and business settings. Application and evaluation of techniques to modify behavior that involve counselor clients and the counselor in the behavior change process with effective communication emphasized. *D.*

522 Career Development: Research and Theory (4)

Prereq: 520 or 530 or 541. Theories, practices, methods, and processes of career development for varied settings: school, community, business; review programs which develop career planning/life components; exploration of career education and counseling opportunities; review and/or implementation of career-related research. *Olsheski; F; Su; Y.*

525 Foundations of Rehabilitation Counseling (4)

History and development of counseling of individuals with disabilities. Other topics include philosophy, counseling process, place of rehabilitation counseling in community, legislative aspects, and overview of agency activities. *Olsheski; W; Y.*

526 Medical Issues in Rehabilitation (4)

Overview of basic anatomy, physiology, and the normal functioning of body systems. Emphasis on functional aspects of disability; psychosocial and vocational implications; and importance of incorporating a sense of wellness. *Olsheski; F; Y.*

528 Psychosocial Aspects of Disability (4)

Explores the emotional and social factors contributing to disabilities, the interaction of these factors in the rehabilitation process, and the role of the rehabilitation counselor in understanding the dynamics of disability. *Olsheski; Sp; Y.*

529 Job Placement Theory and Techniques (4)

Provides rehabilitation counselor trainees with requisite skills to perform job analyses, suggest job modifications or restructuring, conduct job development activities that affect successful job placement for individuals with disabilities. *Olsheski; W; Y.*

530 Foundations of Counseling (4)

Rationale, scope, and nature of counseling services in educational, community, and business settings; multiple approaches to provision of such services with emphasis on role of counselor in needs assessment, program planning, counseling, consultation, coordination of services, and curriculum development for diverse populations. Study of problems, issues, trends, and ethical responsibilities in the field of counseling. *Hazler; F; Su; Y.*

531 Appraisal I (4)

Prereq: 520 or 530 or 541. Concepts of reliability and validity as applicable to appraising human characteristics set stage for considering critical role that clinical judgment plays in professional helping. Emphasis on basic appraisal techniques, including diagnostic interviewing, observational systems, rating scales, interactional analysis, and educational and psychological testing. Testing portion provides introduction to intelligence, achievement, aptitude, and perceptual, vocational, and personality (objective and projective) measures. *Hazler; W; Y.*

545 Counseling Over the Life Span (4)

Prereq: 520, 525, 530, 541. Implications of life-span development issues for counselors. Issues in counseling and counseling needs throughout the life span will be explored. Techniques and strategies for counselors to use in dealing with the needs of persons of different ages will be covered. *W; Su; Y.*

550 Counseling in Groups (5)

Introduction to group processes and their application in a variety of settings. Topics include history, theory, techniques, group dynamics and counseling, group leadership, ethics, research and evaluation, lectures, demonstrations, and group lab experience. *Sp, Su; Y.*

555 Counseling Theory and Techniques I (5)

Didactic phase includes a review of the basic counseling competencies applicable to all theoretical approaches. Affective, behavioral, and cognitive-oriented approaches to counseling also discussed from a general perspective. The lab phase of the course allows students to practice the counseling competencies addressed in the classroom. *F; Su.*

570 Organizational Theory and Techniques in Counseling and Personnel Services (4)

Prereq: 520 or 530 or 541. Identification of need for counseling and human resource development programs in the workplace. Employee assistance programs, training and development, and career development issues addressed. The course content can be considered for a variety of work settings such as business and industry, educational institutions, and mental health facilities. *Davis; W; D.*

610 Field Experience in Counseling (1-12)

Supervised field work in educational or community setting selected with regard to professional needs and interests of individual student. Student should have a clear idea of type of field experience desired and required setting for the experience before enrollment. Course requirements will include on-site supervision by staff, regularly scheduled on-campus conferences, and progress and terminal reports. *D.*

620 Readings and Research:**School Counseling (1-5, max 12)**

Study and interpretation of professional literature on counseling and other guidance services provided in elementary, secondary, and vocational school settings, as well as two-year colleges. Independent and directed projects. *F; W, Sp, Su.*

621 Readings and Research in**Community Counseling (1-5, max 12)**

Study and interpretation of scientific research on community mental health or selected government agencies. Independent and directed projects. *F; W, Sp; Y.*

6238 Special Topics Seminar: Stress, Biofeedback, and Self-Control (1-3, max 18)

Provides overview of holistic approach to well-being, nature, and sources of stress and distress, effects of distress upon mind-body systems, and methods that are important for developing physical and mental relaxation, cognitive intervention, and assertive behavior. Specific applications in occupational and life settings suggested. *F.*

623C Special Topics Seminar: Marriage and Family Counseling (1-3, max 18)

Analysis of factors contributing to marital and family dysfunction. Development and implementation of selected counseling models and strategies commonly used in working with couples and families. *Beamish; F; Y.*

623D Special Topics Seminar: Assertiveness Training (1-3, max 18)

Focuses on theory and strategies of assertiveness training. Attention to goal setting, role playing, alternative behavior, evaluating consequences, and implementation of assertive behavior. Emphasis on differentiating nonassertive, assertive, and aggressive behavior. *D.*

623E Special Topics Seminar: Counseling and Human Sexuality (1-3, max 18)

Study of human sexuality and stereotypical attitudes, attainment of basic knowledge, awareness of sexual abuse and violence, and understanding sexual dysfunction and sexual adequacy. *D.*

623F Special Topics Seminar: Adlerian Theory, Methods, and Research (1-3, max 18)

Theory, research, and applications of individual psychology in educational, community, business, and private practice settings. Counseling, consultation, and psychotherapy methods and techniques will be demonstrated. *Sweeney; D.*

623G Special Topics Seminar: Human Relations Skills for a Multicultural Society (1-3)

Provides for understanding of human relations skills for effective interpersonal communication. Focus on skill development, cultural and value differences among ethnic, racial, religious, and other groups. These skills have generic application for helping professionals in educational, community, family, work, and leisure settings. *Doston; D.*

623H Special Topics Seminar (1-3, max 18)

Prereq: perm. Seminar topics include areas of study in human potential, rehabilitation counseling, normal and dysfunctional physical, mental, and emotional development.

638 Gerontological Counseling (3)

Attitude awareness regarding older persons, knowledge of developmental periods of aging, basic gerontological counseling concepts, and skills in applying knowledge of aging and counseling to work with older persons are emphasized. *D.*

652 Laboratory: Group Counseling (5)

Prereq: 550 Advanced study of group theory, research, and applications. Group dynamics, leadership styles, and techniques are examined as they apply to various settings. Lecture, demonstration, and group lab experiences. *W; Y.*

655 Counseling Theory and Techniques II (5)

Prereq: 555. Didactic phase of the course focuses upon specific theoretical orientations of counseling. These include individual psychology, rational emotive, behavioral, gestalt, reality, and multimodal theories of counseling. The lab phase allows practice of theoretical approaches addressed in the classroom. *Davis; W; Y.*

660 Chemical Dependency Counseling (3)

Focuses on the addictive process, stages and symptoms of chemical abuse, and intervention and treatment strategies for addiction. *Davis; F; Su; Y.*

662 Diagnosis and Treatment Planning in Counseling (4)

Emphasis on diagnostic and treatment process facing the mental health professional. Provides an opportunity to familiarize oneself with the diagnostic and statistical manual of mental disorders, as well as to interpret and make diagnostic assessment with a confederate client. Alternative treatment and planning are reviewed. *Davis; Sp, Su; Y.*

664 Mental Health Consultation (3)

Introduction to the theory and process of mental health consultation as practiced in such settings as social service, rehabilitation, child care, community mental health agencies, prisons, schools, employee assistance programs, health maintenance organizations, and private practice. *Sp; Y.*

- 685 Multicultural Education (4)**
Provides understanding of cultural, ethnic, and racial differences and similarities in American society. Focuses on preparing professionals in educational, community, and leisure settings for working successfully with America's multicultural population. *Doston; F; Su; Y.*
- 691 Seminar in Education (4)**
Prereq: 35 grad hrs, EDRE 501. Student chooses area, engages in library research, interviews, questionnaires, etc., and writes a substantial, scholarly paper. Students must submit a proposal to the instructor by the ninth week of the quarter prior to the quarter of enrollment. *F, W, Sp, Su; Y.*
- 695 Thesis (2–10)**
F, W, Sp, Su; D.
- 700A Advanced Counseling Practicum: School (5–15, max 15)**
Prereq: advanced standing, perm. Students conduct supervised counseling sessions. Preparing case notes, consulting with other professionals, critiquing audio- and videotapes of their counseling sessions, participating in practical seminars, etc., are part of the experience. Students must submit an application for admission to the practicum the quarter before expected enrollment. *F, W, Sp; Y.*
- 700B Advanced Practicum: Community (5–15, max 15)**
Prereq: advanced standing. Students conduct supervised counseling sessions. Preparing case notes, consulting with other professionals, critiquing audio- and videotapes of their counseling sessions, participating in practica seminars, etc., are part of the experience. Students must submit an application for admission to the practicum the quarter before expected enrollment. *F, W, Sp; Y.*
- 700C Advanced Practicum: College (5–15, max 15)**
Prereq: advanced standing. Students conduct supervised counseling sessions. Preparing case notes, consulting with other professionals, critiquing audio- and videotapes of their counseling sessions, participating in practica seminars, etc., are part of the experience. Students must submit an application for admission to the practicum the quarter before expected enrollment. *D.*
- 700D Advanced Practicum: Rehabilitation (5–15, max 15)**
Prereq: advanced standing. Students conduct supervised counseling sessions. Preparing case notes, consulting with other professionals, critiquing audio- and videotapes of their counseling sessions, participating in practica seminars, etc., are part of the experience. Students must submit an application for admission to the practicum the quarter before expected enrollment. *F, W, Sp; Y.*
- 710 Counseling Internship (8–16)**
Prereq: advanced M.Ed. standing. A culminating experience providing counseling and related services to clients in educational, community, and business settings. Services may include functions related to special problems and populations. On-site supervision by staff is required, along with regular on-campus conferences. *F, W, Sp; Y.*
- 720 Advanced Seminar in Counseling (2–15)**
Prereq: advanced standing. Doctoral seminar providing students with preparation for in-depth study of counseling in educational, community, and business settings. *Hazler; F.*
- 722 Career Development and Counseling (4)**
Prereq: advanced standing. Methods and practices in career planning and decision making; career patterns and theories; counseling services that promote career and vocational development and research. *Olsheski; D.*
- 731 Appraisal II (5)**
Prereq: 531. Special attention devoted to intelligence theory and tests (e.g., Stanford-Binet and Wechsler instruments); case data interpretation; and report writing and communication of appraisal results to other professionals. *Leinbaugh; W; Y.*
- 732 Advanced Appraisal (5)**
Prereq: 531 and practicum. Advanced appraisal techniques reviewed, with particular attention to personality measures. Both objective and projective techniques considered, and each student is expected to develop applied expertise with a method of each type. Actual case appraisals analyzed and critiqued; integration of data from a variety of appraisal procedures and professional communication of results emphasized. *Sp; Su.*
- 735 Counseling the Exceptional (4)**
Prereq: advanced standing. Characteristics of exceptional individuals; developing and implementing counseling services for exceptional individuals in educational, business, and community settings. *D.*
- 736 Counseling and Behavioral Aspects of Special Populations (4)**
Prereq: advanced standing. Intervention and treatment of special populations such as substance abusers; counseling and intervention for disenfranchised, including those who are emotionally, mentally, or physically disabled or incarcerated; and study of cultural and sociological influences on culturally different and implications for counseling. *D.*
- 740 Family Counseling Practicum (2–5)**
Prereq: 623C, 821C. Supervised counseling experiences with families. *Beamish; D.*
- 750 Practicum in Group (5, max 15)**
Supervised experiences in group counseling in a variety of community mental health, university, business, and/or school settings. Individualized readings and study of group counseling theory and techniques. *D.*
- 755 Counseling Theory Advanced (5)**
Theories and systems of psychology as applied to counseling and psychotherapy. Integration of theories and methods of counseling and psychotherapy to assessment and diagnosis, goal-setting, treatment, procedures, and evaluation of progress and outcomes. Use of case study to demonstrate knowledge in the treatment of selected mental, emotional, and behavioral disorders. Application of concepts of human development to personal growth and career-life planning. Review of innovative methods, recent research, and issues and trends. *Beamish; Sp; Y.*
- 759 Counselor Supervision (2–4)**
Prereq: adv standing and/or clinical counseling field exp. Offers advanced graduate students theories and models of clinical supervision used in the counseling profession. Students participate in both didactic and lab activities. *Davis; F.*
- 760 Counselor Education (4)**
Counselor education history and development including standards, selection, and retention policies and practices, program design for pre- and in-service training, and current issues and research. *Hazler; D.*
- 761 Practicum in Counselor Education (5–15)**
Experience in program development and professional counselor preparation activities. Includes supervising of, consulting with, and education of pre- and in-service counselors. Other activities may include student and staff evaluation; organization of personnel programs; and use of staff meetings for counselee study, staff consultation, and program management. *F, W, Su; Y.*
- 762 Legal and Ethical Aspects of Counseling Community, Personnel Services (4)**
Law and ethics considered for educational and mental health contexts. Federal, state, and local statutes relevant to professional functioning, and rights of persons receiving counseling, and psychological services considered. Court decisions, critical cases, and legislation analyzed and interpreted. Code of ethics for counselors, psychologists, and human service workers reviewed. Guidelines for ethical behavior in delivery of services. *Davis; F.*
- 763 Advanced Practicum in Specially Oriented Community Services (5)**
Doctoral-level practicum and seminar providing in-depth practical experience in selected human services in varied colleges and universities, community agencies, and other noneducational settings. *D.*
- 800 Internship (10–15)**
Prereq: perm quarter prior to enrollment. Internship may be taken at pre- or postdoctoral level. Intern works full-time in professional setting consistent with program emphasis for at least two quarters of full-time work or three quarters of half-time work. *F, W, Sp, Su.*
- B21B Special Topics Seminar: Stress, Biofeedback, and Self-Control (1–3, max 18)**
Overview of holistic approach to well-being, nature and sources of stress and distress, effects of distress upon mind-body systems, and methods important for developing physical and mental relaxation, cognitive intervention, and assertive behavior presented. Specific applications in occupational and life settings suggested. Review and critique of papers on selected literature are expected. *D.*
- B21C Special Topics Seminar: Marriage and Family Counseling (1–3, max 18)**
Analysis of factors contributing to marital and family dysfunction. Development and implementation of selected counseling models and strategies commonly used with couples and families. Individualized project, and/or supervised counseling experience required. Review and critique of papers on selected literature are expected. *Beamish; F; Y.*
- B21D Special Topics Seminar: Assertiveness Training (1–3, max 18)**
Focuses on theory and strategies of assertiveness training. Attention to goal setting, role-playing, alternative behavior, evaluating consequences, and implementation of assertive behavior. Emphasis on differentiating nonassertive, assertive, and aggressive behavior. Review and critique papers on selected literature are expected. *D.*

821E Special Topics Seminar: Counseling and Human Sexuality (1–3, max 18)

Study of human sexuality and stereotypical attitudes, attainment of basic knowledge, awareness of sexual abuse and violence, and understanding sexual dysfunction and sexual adequacy. Review and critique of papers on selected literature are expected. *D.*

821F Special Topics Seminar: Adlerian Theory, Methods, and Research (1–3, max 18)

Theory, methods, and research related to individual psychology and its applications to educational, community, business, and private practice settings. Counseling, consultation, and psychotherapy methods and techniques will be demonstrated. Review and critique of papers on selected literature are expected. *Sweeney; D.*

821G Special Topics Seminar: Human Relations Skills for a Multicultural Society (1–3, max 18)

Provides for understanding of human relations skills for effective interpersonal communication. Focus on skill development, cultural and value difference among ethnic, racial, religious, and other groups. These skills have generic application for helping professionals in educational, community, family, work, and leisure time settings. Review and critique of papers on selected literature are expected. *Doston; F; Su.*

821H Special Topics Seminar (1–3, max 18)

Other seminar topics include areas of study in human potential, rehabilitation counseling, normal and dysfunctional physical and emotional development, etc.

823 Advanced Readings and Research in Counseling and Student Personnel (1–10)

Prereq: advanced standing. Independent studies and specialized projects for doctoral students. *F; W; Sp; Su; Y.*

825 Colloquium (1, max 3)

Doctoral-level seminars to examine contemporary issues in counselor education. *D.*

852 Advanced Laboratory in Applied Group Dynamics (5)

Group experience as method of studying and applying selected theoretical models of group counseling. Participants experience membership and leadership roles. Individual readings and research on selected group counseling models. *D.*

895 Dissertation (2–15)

F; W; Sp; Su; Y.

Higher Education

The area of higher education consists of graduate programs in college student personnel and higher education administration. The primary mission of this area is to prepare people for leadership roles in colleges, universities, and other agencies devoted to adult learning. Adult learning occurs not only in traditional institutions of higher education, but also in business and industry, social and government agencies, the military, and health care organizations.

These programs differentiate application and theoretical conceptualizations according to degree level. The master's programs focus on the development and application of skills, while the doctoral programs emphasize the study, development, and testing of theoretical concepts. Students progress through the degree levels from M.Ed. or Ph.D. while increasing integration among the components of the individual, organization, and society.

College Student Personnel (EDCP)

The college student personnel program focuses upon the knowledge, values, attitudes, and skills needed by entry-level student affairs practitioners. Students in this program are involved in direct services, which are educational and developmental in nature. The master's degree is a two-year program that follows national standards for professional preparation for student affairs practitioners. The deadline for completed applications is February 1.

College Student Personnel Courses (EDCP)

520 Introduction to College Student Affairs (4)
Introduction to field of student personnel including history and development of the profession, roles, and functions of student affairs professionals. *Young, Guthrie; F; Y.*

521 College Student Development: Theory with Practice (4)

Prereq: S20. Provides an understanding of college student development theories and how they are applied in student affairs. *Young, Guthrie; F.*

522 College Campus/Student Environment: From Theory to Practice (4)

Prereq: S20. Provides an understanding of college environment theories and their application. *Young, Guthrie; Sp.*

523 Multicultural Student Development (4)

Prereq: S21. Analysis of theories of multicultural student development in a broad spectrum of areas, with a particular focus on gender, race, and sexual orientation. Theories of multicultural development for individuals and organizations also will be considered. Emphasizes application in higher education settings.

544A Leadership Issues of College Students (2)

Prereq: S20. Study of theories related to leadership development and student organizations. Future trends and several models are included. *W.*

544B Budget Management (2)

Prereq: S20. An introduction to the budgeting processes and issues related to student affairs programs.

544C Residential Campus Issues (2)

Prereq: S20. Provides the opportunity to develop knowledge about concerns of residential students. *W.*

544D Legal Ethical Issues (2)

Prereq: S20. Study of critical legal and ethical issues that student affairs practitioners confront.

544E Assessment (2)

Prereq: S20. Study of the role of assessment in student affairs administration. The course focuses on issues of retention and campus involvement.

544F Student Learning Imperatives (2)

Prereq: S20. Explores the philosophical base, organizational patterns, management styles and practices, and evaluation methods used in the development of holistic learning in higher education. *Sp.*

544G International Student Services (2)

Prereq: S20. Focuses on the rationale for foreign student services, the functions and services performed, and the foreign student experience in institutions of higher education. *W.*

544H Wellness Issues of College Students (2)

Prereq: S20. A study of the principles, functions, and practices of health education and wellness in regard to the development of college students. *F.*

544J Supervision (2)

Prereq: S20. Introduces students to concepts, components, and personnel styles of effective supervision. *F.*

544K Two-Year College Students (2)

Prereq: S20. The study of practices in the two-year college setting. *Sp.*

544L Computer Applications and New Technology (2)

Prereq: S20. Students master skills necessary to understand the use of computers and new technology in their field. *F.*

603 Practicum in Student Personnel (3–5)

Must be taken 3 times for total of 12 hrs. Supervised experiences in offices of the university or of neighboring educational institutions. *Guthrie, Young; F; W; Sp.*

620 Administration and Organization of Student Affairs Programs (4)

Prereq: S20. Relates theories, skills, and practices of leadership, decision making, organization, and administration to student affairs. *Young, Guthrie; W.*

622 Readings and Research in Student Personnel (1–12)

Survey, analysis, interpretation, and synthesis of professional literature on college student personnel. Independent, directed research project in area of college student personnel. *Guthrie, Moden, Young; F; W; Sp.*

720 College Student Affairs: Theories and Research (4)

Introduction of college student affairs field including history, development of the profession, and roles, functions, and issues in the profession. *Young; F; Y.*

721 College Student Development: Theories and Research (4)

In-depth study of the major theories of college student development that are used in college student affairs. Emphasis on understanding and critiquing the theories and related research. *Guthrie, Young; F.*

722 College Student-Environmental Interactions (4)

Prereq: advanced standing. Explores several person-environmental theories, emphasizes assessment of environment for purposes of changing environment to foster student development. *Guthrie, Young; W.*

743 Advanced Seminar in Student Personnel: Current Issues (2, max 8)

Seminar format concerned with specific professional issue each quarter. Research and guest speakers used extensively. *F, W, Sp.*

803 Advanced Practicum in College Student Personnel (3-6)

Doctoral-level practicum and seminar providing in-depth experiences in selected student affairs offices on various campuses. *Guthrie, Young; F, W, Sp, Su.*

820 College Student Affairs Administration and Organization Theories and Research (4)

Study of selected theories of administration, organization, and leadership with specific application to student affairs operations in higher education. *Young; Sp.*

890 Advanced Readings and Research in College Student Personnel (2-6)

Independent studies and specialized projects for doctoral students. *Guthrie, Moden, Young; F, W, Sp, Su.*

Higher Education (EDHE)

Higher education focuses on administration and teaching. In administration, the program focuses on preparing individuals for leadership positions in higher education. Required coursework examines the background of higher education, the study of internal organizational standards, policy perspectives, and the principles of finance and governance. In college teaching, the program assists students in examining pedagogy and curriculum development on the collegiate level. Coursework provides an opportunity to examine the theory and practice of college teaching, professional development, and the nature of students and the collegiate environment.

Higher Education Courses (EDHE)**588 Introduction to American Higher Education (4)**

Background and growth of higher education in the U.S. Present status of various types of institutions. *Dressel, Miller, Young; F, Su.*

589 Community Colleges (4)

Prereq: 590. Special problems related to administration of community colleges, regional campuses, vocational and technical colleges, and adult education programs. *Miller, Young; F, Su; Y.*

687 History and Philosophy of American Higher Education (4)

Prereq: 588 or equivalent. An exploration of the events and concepts that have shaped American higher education. Focus is on the evolution of the undergraduate college, the comprehensive university, and research and graduate education missions.

688 Contemporary Higher Education (4)

Prereq: 588 or equivalent. A critical analysis of the role of higher education in contemporary American society. Included are examinations of current and ideal roles and of the factors that influence the evolution of American higher education.

689 Legal Issues in Higher Education (5)

Deals with the history, development, and current status of legal issues in higher education. The course considers basic legal relationships involving: governance; relationship with students, faculty, and staff; federal and state regulations, and liability issues.

690 Issues in Higher Education (1-9)

Prereq: 590. Ongoing, up-to-date treatment of significant developments in higher education. *Ping, Miller, Young; F.*

691 Seminar in Education (4)

Prereq: 35 grad. hrs.; EDRE 501. Students choose area of study; engage in library research, interviews, questionnaires, etc.; and write a substantial scholarly paper. Students must submit a proposal to the instructor by the ninth week of the quarter prior to the quarter enrollment.

695 Thesis (2-10)**778 Assessment and Evaluation (4)**

Provides students with an understanding of the principles and practices that are associated with assessment in higher education. Focuses on the reasons for the development of the current assessment movement, and on approaches for improving academic programs and support services.

779 Finance and Budgeting in Higher Education (4)

The course is an overview of the principles and practices of financing institutions of higher education. The course will also focus on the structure, process, and skills of building institutional budgets.

780 Dynamics of College Teaching (4)

Examination of the intent, current practice and potential improvement of college teaching. *Young; W.*

781 Directed Experiences in College Instruction (1-10)

Individualized program under guidance of instructor or department which would include field study and experience in college teaching. *F, W, Sp.*

782 Curriculum Development in Higher Education (4)

Prereq: advanced standing. Critical study of factors and issues involved in curriculum development. Types of curricula and underlying philosophies. Curriculum research and evaluation in higher education. *Young; Sp.*

783 Institutional Research and Self-Study in Higher Education (4)

Prereq: advanced standing. Problems of institutional research office including institutional need and methods of data collection and reporting. Principles of long-range planning. *Moden; W.*

784 Practicum in Higher Education Administration (3-6)

Practice in working under supervision in offices in the university and other institutions of higher education. *F, W, Sp, Su.*

785 Organization and Governance of Higher Education (4)

In-depth study of internal organizational patterns and structure of a variety of institutions of higher learning. Policy perspectives in higher education. *Miller, Moden; F.*

786 Management of Higher Education (4)

Prereq: 785. Focus on internal management issues and practices. *Miller, Moden; W.*

788 Policy Perspectives in Higher Education (4)

Prereq: 786. Explores public and private policy questions about the success of contemporary higher education. Examines the economic and social benefits for individual citizens and for society as a whole.

823 Readings and Research in Higher Education (1-3)

Independent study and specialized research projects for advanced students in field of higher education. (May be repeated for credit.) *F, W, Sp, Su.*

890 Special Topic Seminar (1-4)

Seminar treatment of areas of current or topical interest in field of higher education. (May be repeated for credit.) *W.*

895 Dissertation (2-15)

Department of Educational Studies

The Department of Educational Studies provides courses for undergraduate and graduate students in the areas of educational leadership and administration, cultural studies of education, educational research and evaluation, technology in teaching and learning, and international studies in education.

The academic specialties of the department faculty and the courses they teach are interdisciplinary in nature and relate to programs across the entire College of Education. The faculty work in close collaboration with the other two departments in curriculum planning, teaching, advising, and research.

For more information about programs, contact the Chair, Department of Educational Studies, College of Education, Ohio University, McCracken Hall, Athens, OH 45701-2979.

Educational Administration (EDAD)

The Educational Administration Program at Ohio University prepares individuals for leadership positions in K-12 schools and other education agencies. Emphasizing the knowledge, skills, and practices of responsive leadership, the program fosters a vision of humane, engaging, inviting schools where administrators, teachers, and students work democratically to promote academic excellence. The program is committed to an ethic of leadership that is attentive to the human side of school change.

The program places special emphasis on rural and small schools. Course work and field experiences integrate conceptual and practical knowledge, grounding leadership practice in a thoughtful appreciation of the context in which schooling takes place.

The Educational Administration Program offers graduate degrees at the master's and doctoral levels as well as course work required for Ohio certification as an elementary, middle or high school principal; local superintendent; or county superintendent of special education.

Educational Administration Courses (EDAD)

- 601 Introduction to Educational Administration (4)**
Nature and critical tasks of educational administration, problems and issues, purposes, situational factors, processes; qualifications for the job, personal assessment, preparation, in-service training, professional opportunity, and challenge. *F, Su.*
- 602 Organizational Structure in Education (4)**
Considers general organizational theory as applied to the existing structure of schools and other educational agencies such as colleges, universities, private, and alternative schools. *W, Su.*
- 603 Human Behavior in Educational Organizations (4)**
Provides potential leaders of educational institutions with the theoretical knowledge and skills necessary to function effectively within the human element of educational organizations. *Sp, Su.*
- 611 Educational Law (5)**
Prereq: 601. Selected principles of constitutional, statutory, case, and common law affecting schools and school personnel with special reference to Ohio school law. *Sp.*
- 621 Educational Finance (5)**
Examines economics and education; educational finance as type of public finance; theories, concepts, and issues related to programs designed to achieve equalization of educational opportunities; local, state, and federal programs of financial support for education. *Glascock; F.*
- 631 Personnel Administration in Education (4)**
Prereq: 601. Organization and implementation of personnel functions. Covers organizational structure, staff procurement, staff selection, staff development, and conditions of service for people in the organization. Competencies in course conceptually oriented to provide understanding of personnel process. *F.*
- 640 The Principalship (4)**
Prereq: 9 hrs incl 601. Leadership theories and practices. School/ community organization; social-political forces; instructional leadership; teacher appraisal; elementary, middle, and secondary school administration. *F.*
- 641 The Principalship—Skill Competencies (4)**
Prereq: 9 hrs incl 601. Designed for persons aspiring to become administrators. Individualized approach to developing job skills for specific tasks in elementary, middle, and secondary schools in actual job setting and simulated settings. *W.*
- 661 Public Relations in Education (4)**
Principles, program organization, agents, and media in effective public relations; models of communication; attitude change; development of problem situations and simulations of practical problem-solving techniques; examples from public school administration, higher education administration, and sports administration. *F.*
- 671 Community Education (4)**
Introduction to philosophy of community education with emphasis on role of school administrator in conceptualizing philosophy and then taking leadership in developing and implementing community education programs.
- 690 Research in Educational Administration (1–6)**
Prereq: 601. Individual research studies. *F, W, Sp, Su.*

- 691 Seminar in Education (4)**
Prereq: 35 grad. hrs., EDRE 501. Student chooses area of study, engages in library research, interviews, questionnaires, etc., and writes a substantial, scholarly paper. Students must submit a proposal to the instructor by the ninth week of the quarter prior to the quarter of enrollment. *F, W, Sp, Su.*
- 695 Thesis (2–10) D.**
- 702 State and National Administration of Education (4)**
Prereq: 601. State program of education, state responsibility, educational organization, certification and tenure, national problems in education.
- 703 Administration of Education in Other Countries (4)**
Prereq: 601. Programs, organizational structure, and control of education in other countries. U.S. assistance programs for educational administration in developing nations.
- 731 Conflict Management in Educational Administration (4)**
Theories, attitudes, techniques, and strategies for managing conflict, solving problems, negotiating, and decision making in educational organizations. Focuses on understanding conflict and persons involved. Practice for third-party mediators, as well as conflict participants. *W.*
- 734 Competency Development in Personnel Administration (5)**
Prereq: 631. Practicum designed to develop competency to perform effectively in area of personnel administration. Includes all aspects of personnel administration as a team concept. Specific competencies developed include writing policy, staff selection, staff evaluation, establishing record systems, career counseling, salary administration, and meeting organizational and staff needs. Competencies developed in terms of actual situation.
- 740 Special Problems of the Principalship (2–6)**
Prereq: master's degree; practicing principal. Critical appraisal of major problems and issues in elementary, middle, and secondary school administration. Individual and group study procedures.
- 742 Planning Educational Facilities (5)**
Prereq: 601. Helps student to gain an appreciation for importance of facilities to educational enterprises. Acquaints student with principles, processes, and problems involved in identification of need for planning and acquisition of new facilities and for improvements to existing facilities. *Sp.*
- 751 Business Administration in Education (4)**
Prereq: 601. Helps student develop increased awareness of and appreciation for role and function of business administration in total educational enterprise. Promotes understanding of major task areas and competencies required to become knowledgeable about current theories and recommended practices in administration of business affairs in education. *W.*
- 752 Problems in Administration of Education (1–6)**
Intensive course or workshop for practicing educational administrators. Content of each offering specially selected to meet needs of particular group being served. Amount of credit depends on length of course. Topics include:

- A. Administration in Bilingual Settings
- B. Business Administration
- C. Collective Bargaining in Education
- D. Community Education
- E. Conflict Management in Educational Administration
- F. Educational Facilities Planning
- G. Educational Finance
- H. Educational Law
- I. Leadership
- J. Personnel Administration in Education
- K. Planning and Evaluation in Education
- L. The Principalship
- M. School-Community Relations
- N. The Superintendency
- O. Pupil Transportation
- P. Politics of Education

780 Politics and Local School Administration (4)
Examines ideas related to political power and educational decision making, community power structure, school board member nomination and election, politics and innovations, and administrator's base of influence in community. *Reed; Sp.*

784 Educational Planning and Evaluation (5)
Intended to help advanced graduate students gain better understanding of theories related to and systems and techniques employed in comprehensive planning and evaluation in educational enterprises of all types and levels, and help students gain some competence in application of those theories, systems, and techniques. *Sp.*

791 Leadership Project—Problem Identification (4)
Individualized field-oriented course designed to assist practicing educator in conducting systematic, in-depth studies to identify critical problem areas in selected phase of school system operation. *F, W, Sp, Su.*

792 Leadership Project—Implementation (4)
Individualized field-oriented course to assist practicing educator in developing skills in identifying techniques and strategies for implementing change related to critical problem areas identified in 791. *F, W, Sp, Su.*

793 Leadership Project—Analysis and Evaluation (4)
Individualized field-oriented course to assist practicing educators in identifying and using techniques for analyzing their practices in implementing change. Complete leadership project (791, 792, and 793) culminates in a written analysis and evaluation under direction of advisor. *F, W, Sp, Su.*

811 Legal Aspects of Educational Administration (4)
Prereq: 611. Intensive study of selected aspects of both case and statutory law, constitutional basis for education, schools in their legal setting, school legislation, and relevant court decisions. Extensive reading in an approved law library required.

824 Seminar in Educational Finance (5)
Helps students gain greater depth of understanding of theories, practices, problems, and issues to foster an increased competence in financing educational enterprises. *Glascok.*

831 Seminar in Collective Bargaining in Education (4)
Gives students understanding of collective bargaining movement in education through simulation, readings, guest lectures, media presentations, and discussions. Each student assigned a bargaining team which has responsibility for negotiating a contract. Attention given to analyzing contracts between selected employee groups and boards of education, impasse resolution, and contract administration. *W, Su.*

844 Seminar in Educational Facilities (5)
Helps students gain greater depth of understanding of and competence in planning of educational facilities and administration of building programs.

854 Seminar in Business Administration in Education (5)
Helps students gain understanding of and competence in administration of business affairs in education.

864 Seminar in Public Relations (5)
Prereq: 661. Special topics, new concepts, and specific techniques for public relations in public, private, higher education, and sports administration; in-depth investigation of problems of specific interest.

881 Organization in Educational Systems (4)
Study of organizational and systems theories and analysis of organizational systems. Study of implications of such theories and systems for educational administration.

890 Research in Educational Administration (1–6)
Individual research studies. *F, W, Sp, Su.*

895 Dissertation (2–15)
F, W, Sp, Su.

Computer Education and Instructional Technology

The master's program serves educators in K-12 schools and technical and community colleges that wish to pursue advanced preparation in computer education and technology.

The program prepares classroom teachers to use technology more effectively in their teaching and to become technology leaders in their school or district.

Graduates of the program who hold an Ohio teaching license will be qualified for the multi-age endorsement in Computer Education and Technology.

The doctoral specialization in Instructional Technology is designed for individuals whose major professional interest is in instructional and informational technologies in elementary and secondary schools or in institutions of higher education.

The program prepares graduates for positions as technology leaders in school districts, state technology consortia, professional development centers, educational technology centers, or distance learning projects; as instructional designers for educational enterprises; and for faculty positions in higher education.

It may also prepare individuals for technology leadership positions in ministries of education and higher education administration.

Computer Education and Instructional Technology Courses (EDCI)

515 Basic Classification and Cataloging (5)
Prereq: admission to grad study. Prepares prospective media specialists for classification and cataloging of both print and nonprint materials with practice in preparation of card catalog such as would be encountered in elementary and secondary school library/media center. Research paper required.

516 The Use of Library Resources II (3)
Trains prospective media specialists in effective use of modern library reference sources, including indexes, bibliographies, dictionaries, yearbooks, with emphasis on subject fields such as art and music, economics, history, geography, education, library, literature, psychology, philosophy, religion, science, and technology. Research paper required.

528 Library Service to Children and Young Adults (4)
Study of various aspects of library/media work with children and young adults through films, texts, articles, and small and large group discussions. Class participants will study trends in library services, including effects of television, outreach programs for special child. Major emphasis on selection policies of library/media materials.

532 Microcomputer Applications in Education (4)
Introduction to uses of microcomputers in education. Emphasis in evaluating hardware and software, exploring educational applications, and developing introductory program-writing skills.

596 Introduction to Educational Media (4)
Principles of instructional materials and media applied to teacher-student communication. Basic experiences in production of instructional materials and equipment operation. Research paper required. Lab.

597 Production of Instructional Materials (4)
Prereq: 532, 596, 698. Use and preparation of locally produced, inexpensive instructional materials. Lab experience in use of pictures; lettering; coloring; preservation; and reproduction techniques for pictures, slides, transparencies, etc. Final project required.

632 Educational Applications of the Internet (4)
Prereq: 532. In-depth study of the applications of telecommunications in K-12 education. Topics include accessing global information resources, video conferencing, and publishing on line. Students develop instructional activities that integrate telecommunications across the school curriculum.

635 Advanced Classification and Cataloging (4)
Prereq: 515. Problems of classifying by Dewey; corporate entry; Library of Congress classification and subject headings; serials. Introduction to other classification systems, divided and classified catalogs, administration of catalog departments; consideration of current issues. Lab work involved.

- 636 Media and the Young Adult (4)**
Theoretical approach to young adult programming and services; analyzing general characteristics of young adults, their information needs, institutional services and operational factors, materials and media, information-seeking behavior, media use, and impact of media.
- 637 Library Media Automation (3)**
Covers computer applications to library functions; instruction; management of instruction; instructional software evaluation; and instructional software design technique.
- 690 Research in Education (1-6)**
Individualized research project. *F, W, Sp, Su; Y.*
- 691 Master's Research Project (4)**
Prereq: 35 hrs. Nonthesis option, major paper required. *Sp, Su; Y.*
- 695 Thesis (1-10)**
F, W, Sp, Su; Y.
- 696 Organization and Administration of Educational Technology Programs (5)**
Prereq: 515, 516, 528, 596, 597, 698. Duties of university and public school media directors; budgeting, training of personnel, handling and classifying materials, management, and evaluation programs. Research paper required. *Sp; Y.*
- 697 Analysis of Media Theory, Research, and Instructional Design Model Nomenclature (3)**
Prereq: EDRE 501. Review, analysis, and criticism of research in educational media, with interpretation and application of research findings of primary concern. Suggestions for future research in educational media, sequencing of instruction in relation to hierarchies of competence, and design of multimedia instruction explored. *D.*
- 698 Instructional Systems Technology (4)**
Systematic procedures for the design, implementation, and evaluation of instruction.
- 699 Practicum in Educational Media (3-9)**
Course participants evaluate a number of media centers for several university media areas. Participants required to prepare written reports on center evaluations.

Cultural Studies in Education (EDCS)

Cultural Studies in Education is an interdisciplinary field that brings perspectives from the humanities and social sciences to bear on the study of education. It recognizes that educational systems are situated in the context of culture, knowledge, and power. Cultural Studies seeks to investigate and analyze the dynamic relationship between school and society with interpretive, normative, critical, and comparative theory and methods.

This program is designed to meet the academic needs of a variety of individuals and considers the diversity of its students a strength.

This degree program is intended both for students who have teaching certification and for those who do not. If a student chooses to obtain teaching certification at the master's level, the student's program of study will be extended.

Students entering the master's program will take core courses in Cultural Studies topics, prepare themselves in two methods of inquiry, plan courses for an individualized concentration in conjunction with an advisor, and plan a culminating project that involves one of the following: action research, an internship, a thesis, comprehensive written exams, or a portfolio presentation.

Cultural Studies Courses (EDCS)

- 500 History of Western Education (4)**
Survey of education in western world from ancient Judaic schools to major contemporary developments. Emphasis on institutional developments and cultural events that accompanied them. *A.*
- 501 History of Education in the U.S. (4)**
Survey of educational developments from colonial America to present. Readings include both primary and secondary sources. Emphasis on institutional developments and cultural events that accompanied them. *Whitescarver; F; Y.*
- 502 Evolution of Educational Thought (4)**
Study of selected educational theorists and cultural assumptions that influenced their ideas. Where available, readings are from primary sources. *A.*
- 503 Philosophies of Education (4)**
Survey of European and American educational theorists and movements from a philosophic perspective. Contemporary educational thought in U.S. emphasized. *Hutchinson; W; Y.*
- 504 Social Structure and Change in Education (4)**
Studies in interaction of social structure and educational reform. Concepts of class, status, bureaucracy, technocracy, and cultural pluralism assessed in their relationships to sociology of knowledge and educational alternatives. *Muhammad; Sp; Y.*
- 505 Comparative Cultures and Education (4)**
Studies in learning as a social process with emphasis on the non-Western experience. Introduction to techniques of comparative analysis and ethnographic examination of learning systems. *Howard; F; Y.*
- 506A Education and Development in Africa (4)**
Interdisciplinary course focusing on the role of learning systems in changing African societies. Historical and ethnographic studies of pre-colonial, colonial, and post-independence African education. Education and training as tools for contemporary change and socioeconomic development. *Howard; F.*

- 507 Programs in International Education (3)**
Assistance programs to education in developing nations; foundation programs, UNESCO programs, A.I.D. programs. Assistance programs of other nations. Objectives, structures, funding, organization, and plans for implementation. *D.*
- 508 Poverty, Education, and International Development (5)**
Interdisciplinary course focusing on poverty in African, Asian, and Latin American societies and the uses of education, including nonformal education, adult education, and literacy programs, to promote rural development. Problems in planning and implementation. Social impact of intervention. *Howard; W; Y.*
- 509 Political Philosophies of Citizenship Education (4)**
Use of popular literature and documentary evidence to critically examine citizenship education as seen by liberals, conservatives, and socialists. Focus on relationships among social/political crises, citizenship philosophy, and issues in education. *Hutchinson; A.*
- 510 Introduction to Cultural Studies in Education (5)**
Interdisciplinary course that brings perspectives from the humanities and social sciences to bear on the study of education. Students investigate and analyze the dynamic relationship between education and culture with interpretive, normative, critical, and comparative theory and methods. *Howard, Hutchinson, Muhammad, Whitescarver; F; Y.*
- 550 Teaching Strategies for Cultural and International Understanding (4)**
Prereq: EDRE 501. Psychological and sociological foundations of cultural values and ways of life investigated. Strategies for developing cross-cultural understanding and cooperation studied and developed. Emphasis upon innovative approaches to learning for elementary and secondary school pupils. Practicum provided. *D.*
- 605 Individual Studies in Comparative Education (2-6)**
Studies in an area of national development. *Howard; D.*
- 606 Seminar in Comparative Education (3-5)**
Topical interdisciplinary seminar focusing on variable themes. Possible topics include women, education, and development, Third World children and youth, etc. *Howard; Sp.*
- 700 Advanced Foundations of Education (4)**
Seminar for selected interdisciplinary studies in social, cultural, and philosophic foundations of education. *Hutchinson, Muhammad, Whitescarver; S; Y.*
- 706 Advanced Seminar in Comparative Education (5)**
Emphasis on interdisciplinary treatment of problems and concerns. Contemporary situations investigated. Techniques for comparative study of educational systems and developments. *Howard.*
- 709 Internship in Comparative Education—United States or Abroad (10-15)**
One-year assignment with stateside operation (such as aiding or assisting in comparative education program) or assignment abroad. Interns required to have had experience in teaching in the U.S. *D.*
- 801 The School as a Dynamic Social Institution (5)**
Prereq: master's degree, 800 or equiv. School as changing social system; changing philosophies, functions, and cultural styles of school. Politics, control, and conflict resolution in school. *Hutchinson, Muhammad, Whitescarver; W; Y.*

Educational Research and Evaluation (EDRE)

The College of Education offers both a master's and Ph.D. program in Educational Research and Evaluation (EDRE) to prepare graduates for research and faculty positions as well as leadership roles in research organizations in Ohio and around the world. This program offers students courses in several areas—research design, testing and measurements, questionnaire development, statistics, computer programming, evaluation, and qualitative research. The student-faculty ratio is quite favorable, and there are opportunities for students to interact with faculty and to become involved with both new and ongoing projects and research in the United States and sometimes overseas.

Low minimum course requirements allow students to design individualized programs with courses across the University. In particular, we often have students taking courses in higher education, mathematics, psychology, and computer science. In addition, many students develop areas of interest within various specializations of teacher education.

Our students come from a variety of undergraduate disciplines. While there are no specific requirements, we seek students with a reasonable background in mathematics (calculus and linear algebra) or in an area closely related to mathematics. Statistical and/or computer skills are desirable.

Educational Research and Evaluation Courses (EDRE)

501 Introduction to Research Methods (4)
Methods of research in education. Selecting, planning, and evaluating research problems. *Barcikowski, Green, Johanson; F, W, Sp, Su; Y.*

510 Educational Measurements (4)
Construction of tests, item analysis, and statistics for test scores. Reliability, validity, and standard scores. *Green, Johanson; F, W, Sp, Su; Y.*

690 Readings in Educational Research and Evaluation (1–4)

Guided readings course, tailored to meet needs and interests of individual students, in selected topics in educational research, measurement, statistics, and evaluation. *D.*

692 Special Projects in Educational Research and Evaluation I (1–8, max 8)

Prereq: 6 hrs in area. Individual research in problem areas in educational research, statistics, measurements, and evaluation. May be a theoretical or critical evaluation of recent research in some area in regard to objectives, content, and methodology. Projects may be individual or small groups. *D.*

693 Seminar in Educational Research and Evaluation (1–5, max 10)

Prereq: perm. Special problems in elementary education, secondary education, counselor education, college student personnel, cultural studies, higher education, international and comparative education, special education, and school administration. *D.*

695 Thesis (2–10)
D.

711 Techniques of Test Development (5)

An introduction to classical (true-score) test theory including such topics as reliability, validity, generalizability theory, standard-setting, and differential item functioning. *Johanson; W.*

712 Research in Educational Measurements (5)

An introduction to item response theory (IRT) including such topics as test construction, equating, data simulation, parameter estimation, and computer adaptive testing. *Johanson; Sp; Y.*

720 Educational Statistics (5)

Measures of central tendency, measures of variability, standard scores, normal curve, simple regression, correlation, point estimates, testing statistical hypotheses, confidence intervals, *t*-distributions, chi-square distributions, and *F*-distributions. Use of computer statistical packages. *Barcikowski, Green, Johanson; F, Su; Y.*

721 Regression Analysis in Education (5)

Prereq: 720. Multiple and multivariate regression, one-way and two-way analysis of variance (univariate and multivariate), contrasts. Use of computer statistical packages. *Barcikowski, Green; W, Su; Y.*

722 Multivariate Methods in Education (5)

Prereq: 721. Factor analysis, canonical correlation analysis, discriminate analysis, higher order factorial designs, nested designs, analysis of covariance, repeated measures designs, and analyses where there are missing values. Use of computer statistical packages. *Barcikowski, Green; Sp; Y.*

723 Questionnaires and Nonparametric Statistics in Education (5)

Prereq: 720. Emphasis on questionnaire design and analysis using nonparametric statistics. Scaling, sampling, and selected parametric procedures are included. *Barcikowski, Johanson; W; D.*

724 Research in Educational Statistics (4)

Prereq: 722. Examination of research designs involving linear structural relationships, categorical data analyses, and hierarchical linear models. *Barcikowski; D.*

731 Computer Science Applications in Education I (5)

Prereq: 720. Use of Monte Carlo methods in educational statistics using the SAS programming language. *Barcikowski, Johanson; F, Su; Y.*

732 Computer Science Applications in Education II (5)

Prereq: 721 and 731. Advanced application of SAS Proc Matrix to problems in education. *Barcikowski, Johanson; W, Su.*

733 Research Design in Education (5)

Prereq: 720 and 721, concurrent. Critical evaluation and development of research studies. Emphasis on development of problems which admit to scientific investigation, statement of hypotheses, definition of terms, problems of sampling, statistical methods, and interpretation and generalization of findings. *Barcikowski, Green, Johanson; Sp; Y.*

750 Introduction to Qualitative Methods in Education Research (4)

Introduction to the experience of qualitative data collection methods in educational research. Review of origins, theory, and design of method; issues of validity, reliability, and human subject ethics. *Howard.*

790 Advanced Readings in Educational Research and Evaluation (2–8, max 15)

Guided readings course, tailored to meet needs and interests of individual students, in selected advanced topics in educational research, measurement, statistics, and evaluation. May be a theoretical or critical evaluation of recent research in some area in regard to objectives, content, and methodology. These projects may be individual or small groups. *D.*

792 Special Projects in Educational Research and Evaluation II (2–10, max 15)

Individual research in problem areas in research and evaluation. May be a theoretical or critical evaluation of recent research in regard to objectives, content, and methodology. Projects may be individual or small groups. *D.*

793 Advanced Seminar in Educational Research and Evaluation (1–6, max 15)

Advanced seminar in selected topics in educational research and evaluation, including current trends, issues, and techniques. *D.*

895 Dissertation (2–15)
D.

Educational Leadership

Educational Leadership Courses (EDLE)

710 Cultural and Contextual Foundations of Leadership (4-5)

Investigation of cultural and social influences on the development of leadership in educational settings. Comparative models of leadership presented in their special settings.

720 Moral and Ethical Dimensions of Leadership (4-5)

Examination of the moral dimensions of the process and content of leadership from theoretical and practical perspectives. Emphasis is placed on the application of ethical thinking and concepts to leadership issues and problems in educational settings.

730 Leadership Seminar in Education (4-5)

A survey course emphasizing the philosophical, social and political aspects of leadership. Focusing specifically on leadership for change, especially for leaders in education.

740 Organizational Theory for Educational Leaders (4-5)

Examination of appropriate theory to assist educational leaders in working with diverse groups in an organizational setting.

Department of Teacher Education

The Department of Teacher Education offers programs of graduate study designed to meet the academic and professional requirements of those involved in teaching, curriculum development, and supervision.

Master's degree programs are offered in curriculum and instruction, including emphases in elementary education, middle child education, reading, adolescent to young adult education, special education, supervision, teaching of the talented and gifted, and mathematics education. An initial teaching certificate may be pursued in the following areas: middle child, adolescent to young adult, or special education.

The doctoral program in curriculum and instruction is designed to prepare curriculum and supervision personnel to serve in schools, two-year community or technical colleges, and university settings. The Ph.D. program provides a core of experiences in educational foundations, curriculum, and instructional theories, and a specialization in curriculum and instruction, reading and language arts, social studies education, supervision, mathematics education, middle level education, and special education.

To pursue graduate study, you must meet established graduate entrance requirements and be accepted by the graduate committee. Depending upon the grade-point average you earned as an undergraduate, you may be required to submit the results of the Graduate Record Examination (verbal and quantitative) or the Miller Analogies Test if you are applying for master's degree study. If you are applying for doctoral study, you must submit Graduate Record Examination (verbal and quantitative) or Miller Analogies Test scores.

Students not seeking a degree may pursue graduate courses on a non-degree basis in a planned professional development program.

You should arrange to complete the application process a month in advance of the term in which you plan to begin study, since you can take the Graduate Record Examination only on certain dates throughout the year. Submit your application for financial aid by March 15 to receive consideration for the following academic year.

For more information about programs, contact the chair, Department of Teacher Education, College of Education, Ohio University, McCracken Hall, Athens OH 45701-2979.

Teacher Education/ Curriculum and Instruction Courses (EDCI)

510 Principles of Curriculum (4)

Major curricular movements, principles of curriculum development, forces affecting what is taught, curriculum evaluation, and recent trends. *F, Su; Y.*

510L Laboratory in Principles of Curriculum (1)

Prereq: enrollment in 510. Application of curriculum theory, development, and evaluation in clinical/field settings. *F, Su; Y.*

511 Developing a Thinking Skills Program for the Elementary/Secondary Classroom (4)

Examines current research and theory about the teaching of thinking skills. Emphasis on the integration of theory, research, and classroom instruction. *D.*

514 The Kindergarten Curriculum and the Kindergarten Child (6)

Provides students with opportunity to develop understanding of kindergarten child and curriculum. Focus is on helping develop personal teaching philosophy based on current theory, research, and practice. Assists in developing teaching techniques and teaching materials for kindergarten children. *McMath; Su; Y.*

520 Foundations of Reading Instruction—Elementary (5)

Prereq: EDRE 501. Current programs, materials, and practices in reading instruction; developmental concept, emphasizing optimum realization of pupil potential, and use of reading in total school curriculum. *Rebottini, W. Smith, Staff; W, Su; Y.*

521 Foundation of Language Instruction (5)
Prereq: EDRE 501. Current programs, materials, and instructional practices in language-arts curriculum. Treatment of both impression and expression aspects of oral and written communication, identification and individual investigation of problem areas. *Rebottini, W. Smith, Staff; F; Y.*

522 Diagnosis: Reading/Language (5-15)

Prereq: 520 or 526. Correlation of variability in reading proficiency with incidence of retardation and disability. Exploration of causes of failure and concept of multiple causation. Review of specialized materials and instructional efforts. Systematic observation of cases of reading disabilities and preparation of case report. *Rebottini; F, Su; Y.*

523 Reading/Language: Laboratory (5-15)

Prereq: 522. Application of developmental approach to problem cases in reading instruction, participation in diagnostic examination, parent and teacher conferences, individual procedures in tutoring, staffing of cases, and preparation of reports. (Weekly group discussion period, lab sessions arranged.) *Rebottini; Sp; Y.*

524 Literature for Children and Adolescents (5)

Seminar in critical analysis of research and theory related to children's and adolescent literature. Opportunity to study individual problems. *McMath; Sp; Y.*

526 Secondary Reading Instruction (5)

Materials, methods, and techniques of secondary reading instruction for teaching adolescent learners of various abilities. Emphasis on diagnosis of reading difficulties and adaptation of materials and teaching methods for content area instruction. *Blake-Stalker; W; Y.*

530 Problems and Practices in Modern

Elementary Mathematics—Practicum (4)

Prereq: EDRE 501. Modern elementary mathematics curriculum with emphasis on why changes are occurring. Nature of changes as reflected from experimental programs; effect on teaching methods. Implementation of these changes in the classroom. *Beach, C. Smith; F; Y.*

540 New Programs and Practices in Science (4)

Prereq: EDRE 501. New programs and trends in science teaching identified and evaluated. Philosophy, content, and grade level placement of topics in federal, foundation, and privately sponsored experimental programs in elementary and/or secondary science education identified and practiced in a classroom setting. *Martin; F; Y.*

541 New Topics in Science and Science Education (2-6)

Prereq: teaching experience. Modern advances in science and current science education topics to determine suitable content, apparatus, and grade level placement for presentation in schools. Development and use of curriculum guides, curriculum models, modern units, outdoor education, science fairs, field trips, programmed materials, and similar methods of advancing science education. *Martin; D.*

542 Seminar in Science Education (2-6)

Prereq: bachelor's degree. Provides elementary and secondary school teachers with a variety of techniques that enable them to integrate new concepts of science education into their teaching, such as environmental education, population education, energy conservation, world hunger, food problems, outdoor biology, etc. *Martin, Mitias; D.*

551 Programs and Practices in Elementary Social Studies—Practicum (4)

Prereq: EDRE 501. Trends in modern social studies curriculum. *Leep; D.*

560 Advanced Studies of Children (4)

Prereq: 20 hrs of education and/or psychology. Intensive study of research in child development from conception to maturity and implications for educational practices. *McMath; W, Su; Y.*

561 Introduction to Individualization of Education (4)

Each participant will develop knowledge of major concepts for individualization of education and demonstrate this knowledge through creation of an instructional package designed for a classroom setting. Study of major components necessary for teacher to implement individualized instruction in classroom. *Sp; Y.*

565 Introduction to Teaching the Talented and Gifted (4)

Provides introduction to rationale, scope, and nature of concerns relative to education of gifted youth. Attention to overview of problems and issues including societal factors that influence programs, characteristics and identification of gifted youths, and current and recommended programs. *Su.*

566 Strategies for Teaching Talented and Gifted (4)

Provides regular classroom teachers with background to prepare materials and conduct activities suitable for challenging gifted students in their regular classrooms. Various programs appropriate for gifted students explored. *W.*

592 Workshop in Curriculum and Instruction (1–15)

(Max of 8 hrs may be counted toward M.Ed. requirements.) Designed to provide practicing teachers and other instructional personnel with short courses, workshops, and summer institutes directed toward their identified needs. Areas of concentration are: (A) Language Arts, (B) Social Studies, (C) Science, (D) Mathematics, (E) Reading, (F) Kindergarten, (G) Individualizing Instruction, (H) Team Teaching, (I) Interaction Analysis, (J) Developing Behavioral Objectives, (K) Curriculum Development, (L) Interdisciplinary Topics, (M) Special Topics, (N) Special Education Topics, (O) Supervision of Instruction. *D.*

610 Elementary School Curriculum (5)

Prereq: EDRE 501. Curriculum as a basic educational concern; issues involved in selecting and organizing content; systematic study of curriculum development in elementary school. *Sp, Su; Y.*

611 Supervision of Instruction (4)

Introduction to basic concepts and theories of instructional supervision. Emphasis on the roles, tasks, and processes involved in supervisory practice based on theory and research in education and ancillary fields such as psychology, sociology, philosophy, organizational management, communications, and change agency. *F; Y.*

612 Middle School Curriculum (4)

Prereq: 510. Concentrates specifically on early adolescent age. Special emphasis on unique purposes and concepts of junior high/ middle school curriculum and its role in providing articulation between elementary school and senior high school. *S; Y.*

613 High School Curriculum (4)

Prereq: 510. Study of high school curriculum including emphasis on sources of curriculum and major curriculum movements, study of current issues and program alternatives, and development and evaluation of high school curriculum. *Su; Y.*

614 Analysis of Supervisory Systems (4)

Critical analysis of models of instructional supervision with emphasis on the role and vision of instructional leadership and professional development in the conceptualizing, planning, and implementing supervisory systems. *W; Y.*

618 Supervision of Special Education (4)

Prereq: 611 and 6 hrs of special education. Emphasizes leadership skills, principles, practices, and programs leading to improved education for handicapped children and professional growth for teachers in special education. These skills encompass all areas of exceptionality and include the competencies for evaluating full-time programs, part-time programs, and supportive services to children in the mainstream of education as these relate to each of the several handicapping conditions. Laboratory experiences arranged on an individual basis. *Sp; A.*

660 Advanced Principles of Teaching (4)

Critical appraisal of research in areas of learning and teaching. Study of instructional models as applied to classroom teaching and learning. *Martin, Mitias; W, Su; Y.*

660L Laboratory in Advanced Principles of Teaching (1)

Prereq: concurrent enrollment in 660. Application of instructional models in clinical/field settings. *Martin, Mitias; W, Su; Y.*

667 Characteristics of the Gifted and Their Assessment (4)

In-depth study of characteristics of gifted as revealed through empirical/experimental research and literature. An examination/analysis/ identification of cognitive, social, emotional, and personal qualities most dominant among gifted, as well as concomitant problems. Attention to processes and tools of assessment of characteristics as well as to multiple variables (economic, social, cultural, etc.) that relate to these characteristics. *Mitias; Sp; Y.*

668 Practicum in Teaching Gifted and Talented Students (3–6)

Prereq: 8 hrs in gifted education. Field experience includes applications of the principles of identification, grouping, and curriculum planning to the needs of gifted students in a school setting. The development of the planned activity will be supervised by faculty from the School of Curriculum and Instruction in cooperation with a TAG coordinator and/or appropriate school personnel. *Mitias, F, W, Sp; D.*

672 Practicum in Administration of Special Education (2–6)

Prereq: 6 hrs in special education. Directed administrative experiences in educational programs for handicapped in public schools. Recommended to be taken concurrently with or after 576.

674 Practicum in Supervision of Special Education (2–6)

Prereq: 6 hrs in special education. Directed experiences with supervisors in public schools. Recommended to be taken concurrently with or after 618.

675 Practicum in Multiple Handicapped or M/H Early Childhood Education (2–6)

Individual experiences working directly with multiple handicapped children in different age groups. Deals with assessment, implementation, and evaluation of effective teaching strategies. *D.*

676 Practicum in Early Childhood Special Education (2–6)**690 Research in Education (1–6)**

Individualized research project. *F, W, Sp, Su; Y.*

691 Master's Research Project (4)

Prereq: 35 hrs. Nonthesis option, major paper required. *D. Advisor.*

692 Practicum: Secondary Education (4)

Prereq: perm. Practical applications of theory in educational setting. *D. Advisor.*

695 Thesis (1–10)

F, W, Sp, Su; Y.

712 Middle Level Education: Theory, Philosophy, Curriculum, and Practices (5)

Prereq: 612. Analytical investigation of the historical, philosophical, and theoretical foundations and developmental characteristics relative to middle level education; analysis of exemplary practices of middle level curriculum and educational programs. Review of major theories, relevant research, and the study of contemporary middle level structures and programs. *Staff.*

714 Advanced Seminar in Middle Level Education (5)

Critical analysis and discussion of theory, research, major issues, problems, and trends in the field of middle level education with particular emphasis on future plans, projections, and orientations. The seminar will provide a forum for students and professor interaction relative to new ideas and issues in the middle level education movement. *Staff.*

715 Theories of Curriculum Change (5)

Prereq: 660. Major curriculum models and their underlying theory. Critical reading and interpretation of research related to curriculum change and effectiveness. Applications of theory and research in new models. *F; Y.*

716 Theories of Instructional Design and Evaluation (5)

Prereq: 660, 715. Theories and models of instruction, their psychological and philosophical basis; construction of models of instructional design, and their evaluation to effect desired learning outcomes. *Mitias, Staff; W; Y.*

719 Curriculum and Instruction Practicum (6)

Prereq: 715, 716, 717. Supervised experiences in analysis and application of theories and techniques of curriculum change and instructional change in school setting. *D.*

720 Foundations of Elementary Reading Instructions (5)

Critical evaluation of literature and recent research on objectives, content, and methodology. History of instruction, current problems and issues, recent trends and emphases in teaching practices. Impact of dominant theories of learning and philosophies of education. Research design and methodology in scientific investigations. *Rebottini; W; Y.*

721 Foundations of Language Instruction (5)

Critical evaluation of literature and recent research on objectives, content, and methodology. History of instruction, current problems and issues, recent trends and emphases in teaching practices, impact of dominant theories of learning and philosophies of education. Research design and methodology in scientific investigations. *Rebottini; Staff; F; Y.*

722 Diagnosis: Reading/Language (5–15)

Prereq: 720 or 726. Correlation of variability in reading proficiency with incidence of retardation and disability. Exploration of causes of failure and concept of multiple causation. Review of specialized materials and instructional efforts. Systematic observation of cases of reading disabilities and preparation of case report. *Rebottini; F; Y.*

723 Laboratory Reading/Language (5–15)

Prereq: 722. Application of developmental approach to problem cases in reading instruction; participation in diagnostic examination, parent and teacher conferences, individual procedures in tutoring, staffing of cases, and preparation of reports. (Weekly group discussion period, lab sessions arranged.) *Rebottini; Sp; Y.*

724 Literature for Children and Adolescents (5)

Seminar in critical analysis of research and theory related to children's and adolescent literature. Opportunity to study individual problems. *McMath; D.*

726 Secondary Reading Instruction (5)

Materials, methods, and techniques of secondary reading instruction for teaching adolescent learners of various abilities. Emphasis on diagnosis of reading difficulties and adaptation of materials and teaching methods for content area instruction. *W; Y.*

730 Curriculum in Elementary Education—Mathematics (4)

Prereq: Teaching experience. Critical evaluation of literature and recent research on objectives, content, and methodology. History of instruction, current problems and issues, recent trends and emphases in teaching practices. Impact of dominant theories of learning and philosophies of education. *Beach, C. Smith; D.*

740 Curriculum in Science Education (4)

Prereq: teaching experience. History of science instruction, curriculum problems, issues, recent trends and emphases in teaching practices. Impact of dominant theories of learning and philosophies of education on current curriculum changes in science. Critical review of existing conventional programs used as a background for examining experimental programs. Emphasis on historical development of science education from dominance of nature study and aesthetics to modern experimental programs. *Martin; D.*

750 Inquiry and Value Clarification in Social Studies (4)

Prereq: 550 or 551. Critical discussion of application of inquiry and value clarification models in teaching of social studies. *D.*

760 Readings and Research in Human Development (3–5)

Interpretation of scientific literature on human development as related to classroom experience in preschool through adolescence. Independent projects and solving selected educational problems. *McMath; D.*

790 Advanced Seminar in Education—Research (4)

Review of current literature and research in education. Preparation of research proposal. *D.*

800 Advanced Dynamics of Human Learning (5)

Prereq: master's degree. Study and critique of major theories of learning and human development; analysis of present and future social and cultural changes and their potential impact on human learning and development. *Mitias; F; Y.*

802 Dynamics of Change in Educational Institutions (5)

Prereq: master's degree, 800, 801, or equiv. Analytical study of theories, concepts, and strategies of change, and roles of change agents as related to educational institutions and programs. Case studies and field experiences related to change are examined with emphasis on planning, analysis, and evaluation. *Sp; Y.*

810 Seminar in the Supervision of Instruction (5)

Prereq: 614. Critical analysis and discussion of theory, research, major issues, and trends in field of educational supervision and application of findings to supervisory practices and programs. *D.*

820 Research and Curriculum in Elementary Education Reading (4)

Critical evaluation of literature and recent research on objectives, content, and methodology. History of instruction, current problems and issues, recent trends and emphases in teaching practices. Impact of dominant theories of learning and philosophies of education. Research design and methodology in scientific investigations. *D.*

821 Field Experience: Reading (5–15)

Prereq: 720 or 726. Supervised field experiences in reading. *D.*

822 Field Experience: Language (5–15)

Prereq: 721. Supervised field experience in language. *D.*

823 Independent Study: Reading (5–15)

Prereq: 720 or 726. Independent study with topic restricted to some aspect/level of reading instruction. *D.*

824 Independent Study: Language (5–15)

Prereq: 721. Independent study with topic restricted to some aspect/level of language instruction. *D.*

827 Practicum in Secondary Education—English (5)

In-depth study of school system and its English curriculum with critique by faculty and report by student using available research. *D.*

828 Practicum in Secondary Education—Modern Foreign Languages (5)

In-depth study of school system and its modern foreign language curriculum with critique by faculty and report using available research. *D.*

830 Research in Elementary Education—Mathematics (4)

Research design and methodology in scientific investigations. *D.*

840 Research in Science Education (1–6)

Critical evaluation of recent research on objectives, content, and methodology in science education. Research design and methodology of these investigations studied in detail. Review of microfilm research studies and abstracts made to identify areas and problems requiring further research. *Martin; D.*

841 Practicum in Science Education (2–6)

In-depth study of theory and foundations of science curricula and instructional practices within given school system; analysis of research as it applies to science education in schools. *Martin, Mitias, D.*

850 Seminar in Social Studies Education: Curriculum in Social Studies (3)

Prereq: 8 hrs grad work in social studies education. Post-master's analysis of social, curricular, and instructional theories of various contemporary schools of thought in social studies. *D.*

851 Seminar in Social Studies Education: Program Analysis (3)

Prereq: 850. In-depth analysis of school system and its social studies curriculum. *W; D.*

852 Seminar in Social Studies Education Research (3)

Prereq: 851. Identification of reasonable researchable problems in social studies and development of appropriate research design. *Sp; D.*

870 Legal Issues in Special Education (5)

This course provides an in-depth and critical study of the historical evolution of legal issues in disabilities with attention to its changing impact on policy and service delivery for people with disabilities. Particular emphasis is placed on special education law as it applies to public schooling. *Roth; D.*

872 Critical Issues and Current Trends in Special Education (5)

The intention of this course is to examine the most salient issues and questions facing the field of special education at the onset of the next millennium. Divergent perspectives regarding these challenges that currently confront the profession will be analyzed and evaluated. *Gut; D.*

874 Applied Research in Disabilities (5)

This course provides an overview of applied interdisciplinary research on disabilities. Research will be grouped and analyzed according to the type of methodology employed, including field-based quantitative investigations, single-subject/applied behavior analysis designs, qualitative studies, and experimental and quasi-experimental approaches. *Safran, D.*

876 Collaborative Leadership in Special Education Teacher Education (5)

The demand being placed on leaders in the field of special education is changing due to the emphasis placed on inclusion and collaboration. The purpose of this course is to provide students with insight into the fundamental skills necessary for leaders in special education teacher education. Through readings, guest speakers, and individual projects, students will develop a leadership style and network that will enable them to function successfully in the field of special education teacher education. *Gut; D.*

880 Practicum in Special Education (2-15)

This practicum provides applied learning experiences in a university, public school, governmental office, or agency to participate in professional activities such as college teaching, program development, grant writing, curriculum development, materials development, in-service personnel instruction, special education issues analysis, policy development, and/or program management. Students will collaborate with professionals in special education, related services, and/or their professional colleagues. It will be a field-based investigation intended to connect theory and research with practical applications. *Jageman; D.*

890 Research in Education (1-12)

Prereq: admission to advanced standing. *F; W; Sp; Su; Y.*

895 Dissertation (1-15)

F; W; Sp; Su; Y.

Special Education

The College of Education offers a master's degree in Education with a major in Special Education for a teacher license in the following: Intervention Specialist for Mild-Moderate Educational Needs (to serve students with specific learning disabilities, mild mental retardation, mild developmental handicap, and/or emotional/behavioral handicap); or Intervention Specialist for Moderate-Intensive Educational Needs (to serve students with moderate-severe mental retardation and/or multihandicapping conditions). Each program meets the Ohio teacher licensure requirements. Persons holding no previous teacher license/certification are encouraged to apply. Specific training is provided for all students in assessment, curriculum planning, career development, teaching methodologies, prescriptive and remediation techniques, behavioral management, collaboration, technological applications, research methods, and educational foundations.

The College also offers a master's degree in Special Education with certification in Adult Services, Adult Services Management, Case Management, Residential Services, and a degree without licensure or certification. The Adult Services certifications are for personnel working with adults in the field of mental retardation and developmental disabilities. The non-licensure or non-certification emphasis is intended for professionals from another discipline who work with persons with disabilities throughout the life span and wish to enhance their knowledge and skills in Special Education, but do not desire a teacher license.

Additional information concerning these programs may be obtained from a special education faculty advisor or from the Office of Graduate Studies, Student Personnel Services, McCracken Hall 124, Ohio University, Athens, OH 45701, 740-593-4413.

Planning Graduate Programs of Study.

Before or while completing the first 16 credit hours of graduate study, students must meet with their advisor to clarify personal and professional goals, which are to be written on Form A. Before completing 25 credit hours, students should plan a graduate program of study based on their professional goals. The graduate program of study is to be approved by the advisor who forwards it to the graduate committee for final approval. Any change in a graduate program of study must be approved by the advisor and the graduate committee and be filed with the student's original program of study.

Students must complete a minimum of 48 graduate hours of course work. The number of hours required is determined in consultation with their advisor and is based on previous experience and areas of preparation. A typical intervention specialist teacher license program is 57 hours for a person with a previous elementary teacher license or certification and it will require 82 hours for persons

seeking their initial teacher license in a single area and 96 hours for a dual license. The typical non-license/certification and the adult services program of studies total 48 hours.

Requirements for Continuation.

Students must maintain a 3.00 average to remain in the program.

Special Education Courses (EDSP)**570 Nature and Needs of Exceptional Children and Adults (5)**

An introductory, survey-level course presenting an overview of individuals with exceptionalities. Class members will collectively examine and evaluate a variety of educational, vocational, and social programs for exceptional children and adults. *Gut; Roth, Yanok; F; W; Su; Y.*

571 Curriculum Planning for Learners with Special Needs (4)

Prereq: 5 hrs in special education. Students conceptualize a rationale, a philosophy, and a procedure for analysis, selection, and development of curricula and materials fitting to the goals of the school and to the individual needs, abilities, and interests of exceptional learners. Skills are developed in planning a program curriculum, a subject curriculum, a unit of study, daily lesson plans, and selecting instructional materials. *Jageman; Su; Y.*

572 Career Development and Transition Planning for Individuals with Disabilities (4)

Prereq: 5 hrs in special education. A comprehensive overview of the continuum of vocational options and procedures for preparing exceptional children and adults to fulfill their career roles as family members, as community residents and as workers. *Yanok; Sp; Y.*

573 Assessment of Learners with Special Needs (4)

Prereq: 5 hrs in special education. Formal and informal methods of assessment, screening, and classification, collections, and appropriate application of clinical data utilizing laboratory experiences and multidisciplinary consultations. *F; Sp; Y.*

574 Behavioral Management for Learners with Special Needs (4)

Prereq: 5 hrs in special education. Study of student and teacher needs and behaviors considered when selecting appropriate management methods for a specific situation and when establishing a classroom management plan. Develops skills in establishing classroom expectations, consequences, a structure of activities, specific intervention procedures, and a comprehensive management system. *Jageman; W; Y.*

575 Collaboration and Consultation in Special Education (4)

Prereq: 5 hrs in special education. Examines issues in parent/teacher, teacher/teacher, and teacher/student/parent interactions such as: consultation, collaboration, communication, attitudes, problems and solutions, when to counsel, the role of exceptionalities, family dynamics, parent groups, legal issues, economics, expectations, and home and school environment. The development of collaboration and consultation skills is emphasized. *Safran; W; Y.*

576 Nature and Needs of Learners with Moderate-Intensive Educational Needs (4)

Focuses on analysis of etiologies, characteristics, and diagnosis of learners with moderate to intensive educational needs (including those with moderate, severe, or profound mental retardation; physical and sensory impairments; and medical and behavioral disabilities) and the theoretical and therapeutic implications for transdisciplinary coordination of life span planning and service delivery. Topics covered are medical communicative, and psychosocial aspects of disabilities; as well as legal, ethical, cultural, family, and advocacy issues from birth through adulthood. *Roth; F; Y.*

577 Methods and Materials for Learners with Moderate-Intensive Educational Needs (4)

Prereq: 576 and 5 hrs in special education. Focus is upon design and implementation of multi-factored/transdisciplinary assessment, curricular adaptations/development, IEP planning, instructional strategies, adaptive equipment/materials, evaluation, and methods of structuring and arranging training environments from a life span/interagency perspective for persons with moderate to intensive educational needs.

Roth; Sp; Y.

578 Nature and Needs of Learners with Mild-Moderate Educational Needs (4)

Cross-categorical orientation to disability areas of specific learning disabilities, emotional/behavior disorders and mild mental retardation. Topics include etiology, definitions; identification and assessment procedures; educational services; cognitive academic and social-emotional characteristics; life span ramifications, and current issues in the field. *Safran; F; Y.*

579 Methods and Materials for Learners with Mild-Moderate Educational Needs (4)

Prereq: 578 and 6 hrs in special education. Organization and methods of selection, planning and teaching of appropriate units in the special classroom, emphasis on implementation of current theory and research to strengthen academic-personal-social-vocational adjustment of children with mild-moderate disabilities. *Gut; S; Y.*

670 Technological Applications in Special Education (4)

Prereq: 5 hrs in special education. Provides knowledge and experience necessary to use microcomputers and other technology with persons who have special needs considering the functionality of hardware, software and peripherals. Focus on using Computer Aided Instruction and other technology including: compensation for sensory, physical, communications and learning handicaps. *Sparks; W; Y.*

671 Interventions for Students with Emotional and Behavioral Needs (4)

Prereq: 574 and 5 hrs in special education. Emphasizes skill development in evaluation and assessment methods, social skills training, level systems, crisis intervention, self-management techniques, psychoeducational interventions, medication use and collaborating work with relevant social service agencies. *Safran; Sp; Y.*

680 Practicum in Moderate-Intensive Educational Needs (4-8)

Prereq: 35 hrs in special education. Practical, field-based, learning experience involving classroom observations and teacher aiding activities as well as independent planning and practice teaching. Complete a minimum of 20 hours of field work per college credit hour in an approved special education placement. *Jageman, Roth, Sparks, Yanok; F, W, Sp; Y.*

681 Graduate Practicum in Mild-Moderate Educational Needs (2-8)

Prereq: 35 hrs in special education. A practical, field-based learning experience involving classroom observations and teacher aiding activities as well as independent planning and practice teaching. Complete a minimum of 20 hours of field work per college credit hour in an approved special education placement. *Gut, Jageman, Sparks, Yanok; F, W, Sp; Y.*

691 Master's Research Project (4)

Prereq: 35 graduate hrs in special education. Student conducts a thorough review of the literature pertinent to his/her major field of study and develops foundation and hypothesis(es) for a plan of action that will connect to the student's internship or practica. The project requires achievement of personal and professional goals. *F, W, Sp; Y.*

Professional Laboratory Experiences

Professional laboratory experiences are designed individually by the director of field experience in consultation with your graduate advisor. The experience is planned as a meaningful extension of your experience as a teacher, counselor, or administrator. In general, undergraduate student teaching is a prerequisite for all graduate-level laboratory experiences.

Professional Laboratory Experiences Courses (EDPL)

560 Internship in Education (3-9)

Prereq: 9 hrs grad work in education. Teaching certificate and experience for interns in administration and supervision. Internship in school administration, supervision of instruction, or classroom teaching for minimum of one quarter, full time. Following brief period of orientation to school and community, assumption of increasing responsibility under direct supervision of staff member of school system. Functioning as classroom teacher with regular supervision, as team member in team-teaching situation, or as assistant to administrator or supervisor. Weekly seminar conducted by college staff and public school associates. *F, W, Sp, Su; Y.*

561 Internship in Education (3-9)

Prereq: 9 qtr hrs graduate work in education. Continuation of 560. See 560 for description. *F, W, Sp; Y.*

562 Student Teaching (3-15)

Prereq: perm. In-school student teaching experience. Capstone experience in the master's program in secondary education with teacher certification. *F, W, Sp; Y.*

563 Student Teaching (3-15)

Prereq: perm. Student teaching professional experience extends 562. Capstone experience in the master's program in secondary education with teacher certification. *F, W, Sp; Y.*

565 Student Teaching Seminar (1-3)

Prereq: 562, 563. Seminar to accompany graduate level student teaching. Is a part of the masters in secondary education program with teacher certification. Seminar processes student teaching experience. *F, W, Sp; Y.*

570 Supervision of Student Teaching (3-9)

Prereq: teaching certificate and experience. Principles and techniques in supervision of student teaching and other professional laboratory experiences. Designed primarily to prepare public school teachers and college instructors for more effective supervision. *D.*

690 Professional Laboratory Studies (3-9)

Special studies based upon direct experience in supervision of student teachers in campus or public school laboratories. *D.*

691 Seminar in Education (3)

Prereq: perm. Explores research in teaching. Can accompany 562 or 563; can be used preparatory to 692. *F, W, Sp; Y.*

692 Internship: Theory Into Practice (4)

Prereq: EDCI 691. This course is a theory into practice internship based upon research findings in EDCI 691. All master's students must arrange for their internship at a site that will permit them to plan for the implementation of the findings developed in EDCI 691. *F, W, Sp, Su; Y.*

760 Internship in Education (3-9)

Prereq: 9 qtr hrs graduate work in education. Teaching certificate and experience for interns in administration and supervision. Internship in school administration, supervision of instruction, or classroom teaching for minimum of one quarter, full-time. Following brief period of orientation to school and community, assumption of increasing responsibility under direct supervision of staff member of school system. Functioning as classroom teacher with regular supervision, as team member in team-teaching situation, or as assistant to administrator or supervisor. Weekly seminar conducted by college staff and public school associates. *F, W, Sp, Su; Y.*

761 Internship in Education (3-9)

Prereq: 9 qtr hrs graduate work in education. Continuation of 760. See 760 for description. *F, W, Sp, Su; Y.*

790 Professional Laboratory Studies (3-9)

Special studies based upon direct experience in supervision of student teachers in campus or public school laboratories. *D.*

Russ College of Engineering and Technology

Stocker Center

Warren K. Wray
Dean

Programs leading to master's degrees are available in chemical, civil, electrical, industrial and systems, and mechanical engineering. In addition, the Ph.D. is offered in chemical engineering, electrical engineering, and a cross-disciplinary program in integrated engineering with specialties in materials processing, geotechnical and environmental, and intelligent systems.

Facilities

Graduate programs in engineering are enhanced by an endowment provided by a distinguished alumnus, the late Dr. C. Paul Stocker, and his wife, Beth. Income from this endowment, the net value of which is more than \$15 million, supports advanced research and graduate education through equipment purchases, scholarships, faculty enrichment, and two faculty chairs that bring some of the world's leading engineering talent to the campus for visiting professorships.

The college is housed in the Stocker Engineering and Technology Center. Interdisciplinary research is conducted through the college's centers and institutes: the Avionics Engineering Center, the Center for Advanced Materials Processing Research, the Center for Automatic Identification Education and Research, the Institute for Corrosion in Multiphase Systems, the Ohio Coal Research Center, the Center for Advanced Software Systems Integration, and the Ohio Research Institute for Transportation and the Environment. Students and faculty cooperate across departments to perform research in these centers on multidisciplinary projects.

Graduate Programs

Graduate programs can be formulated with a major in chemical, civil, electrical, industrial and manufacturing systems, or mechanical engineering. The M.S. is offered in all the engineering departments, and the Ph.D. can be earned in chemical engineering, electrical engineering, and an interdisciplinary program with specialty areas in materials processing, geotechnical and environmental, and intelligent systems. Computer science concentrations are offered through the School of Electrical Engineering and Computer Science and the Department of Mathematics.

The standard four-year course in engineering or its equivalent, as offered in institutions approved by the Engineering Accreditation Commission of the Accreditation Board for Engineering and Technology Inc., is a general prerequisite for graduate study. Graduates in science and other fields of engineering whose programs included sufficient courses in mathematics, physics, chemistry, the humanities, and the social sciences may be accepted as graduate students, although undergraduate basic engineering courses may be required. The Graduate Record Examination is required for applicants to all graduate programs except in

extenuating circumstances. See program listings for specific application and admissions information.

Private endowments provide fellowships and associateships ranging from \$12,000 to \$18,000 plus tuition (excluding the general and recreational facilities fees). Other teaching and research associateships also are available. See program listings for details.

Programs leading to the M.S. and Ph.D. in chemical engineering are offered with particular research emphasis in the areas of coal conversion and utilization, polymerization reaction engineering, process control and dynamics, biochemical engineering, corrosion and multiphase flow, environmental assessment, separation processes, and chemical vapor disposition of semiconductive materials. Interdisciplinary efforts also occur in some areas.

The M.S. in civil engineering may be focused in geotechnical engineering, environmental engineering, geoenvironmental engineering, structures, water resources, solid mechanics, or transportation. Research areas include treatment of water and wastewater, landfill components, pavement analysis and modeling, accelerated pavement load testing, noise abatement, structural reliability, reinforcement and prestressed concrete, soil structure interaction, centrifugal modeling, cone penetrometer technologies, constitutive relations for soils and rocks, nondestructive testing, computational methods in structural mechanics, computer-aided structural engineering, long-term water resources forecasting, and stochastic flood and drought analyses.

Programs leading to the M.S. and Ph.D. in electrical engineering are offered. Areas of interest include avionics, computers, applied and theoretical computer science, communications, controls, information theory, solid-state electronics, energy conversion, power electronics, power systems, electromagnetics, signal processing, manufacturing, VLSI design, computer vision, electronic circuits, and opto-electronics.

One of the most distinctive features of the School of Electrical Engineering and Computer Science is its Avionics Engineering Center. Initiated in 1963, the center provides educational opportunities for graduate students who have an interest in electronics and systems related to aircraft safety in takeoffs, landings, and navigation. The center participates in NASA's Tri-University Program with Princeton University and the Massachusetts Institute of Technology. Research projects at the center include instrument landing technologies (ILS, MLS, and GPS), airborne data collection, communications, and navigation system analysis.

The Department of Industrial and Manufacturing Systems Engineering offers an M.S. in industrial engineering with specialized study concentrations in human factors engineering and ergonomics, manufacturing systems, manufacturing information systems, and quality systems. Each area has a set of core courses and recommended electives.

Research leading to an M.S. in mechanical engineering can be formulated with specialization in a number of areas. An M.S. with a manufacturing option is also offered. Areas of interest include computer-aided design and manufacturing, microcomputer control and data acquisition systems, automated manufacturing systems, finite-element analysis, materials processing, robotics, combustion, energy engineering and management, thermal stress analysis, thermofluid systems, air pollution, heat transfer, fluid mechanics, and mechanical design.

The Ph.D. in integrated engineering combines studies from several departments to focus on research areas in geotechnical and environmental, materials processing, and intelligent systems. Students and faculty work across disciplinary lines on important problems in these areas.

Computer Science Concentration

The School of Electrical Engineering and Computer Science and the Department of Mathematics offer a computer science concentration in their respective master's degree programs. See "Electrical Engineering and Computer Science" in this section and "Mathematics" in the College of Arts and Sciences section for details.

Courses 521, 522, and 599 are offered to provide programming instruction for graduate students in various disciplines who wish to use the computer as a research tool.

Computer Science Courses (CS)

500N Introduction to Discrete Structures (4)
Review of set algebra including mappings and relations. Algebraic structures including semigroups and groups. Elements of theory of directed and undirected graphs. Boolean algebra and propositional logic. Applications of these structures to various areas of computer science.

504 Design and Analysis of Algorithms (4)
Prereq: 561. Correctness of algorithms. Analysis of efficiency of algorithms—recurrence relations, worst-case and best-case behavior, average-case behavior. Design of algorithms: divide-and-conquer and balancing, greedy method, graph searching, dynamic programming, backtracking, branch-and-bound and preprocessing techniques.

506 Computation Theory (4)
Prereq: 500 and PHIL 520. Algorithms, recursive functions, Turing machines, decidability.

510 Formal Languages and Syntactic Analysis (4)
Prereq: 520 and 561. Definition of formal grammars: arithmetic expressions and precedence grammars, context-free and finite-state grammars. Algorithms for syntactic analysis: recognizers, backtracking, operator precedence techniques. Semantics of grammatical constructs: reductive grammars, Floyd productions, simple syntactical compilation. Relationship between formal languages and automata.

511 Concurrent Programming (4)
Prereq: 520 or 561. Emphasizes and compares concurrency issues in programming languages. Remote procedure call, asynchronous buffered message passing, synchronized unbuffered message passing, and shared memory are studied, comparing and contrasting programming techniques appropriate for different communication mechanisms and assessing the relative effectiveness of the mechanisms in different problem domains. An introduction to Petri Net and its application to designing concurrent software are given.

512 Parallel Computing I (4)

Prereq: 561. This course is divided into two parts. The first familiarizes students with the variety of approaches to parallel computing and the strengths and weaknesses of each. The second part introduces some of the methods for developing parallel algorithms and analyzes their performance. Different methods for mapping algorithms onto several different parallel architectures and the advantage and disadvantage of each are studied. Algorithms discussed include parallel sorting, searching, and matrix operations.

520N Organization of Programming Languages (4)

Formal definition of programming languages including specification of syntax and semantics. Simple statements including precedence, infix, prefix, and postfix notation. Global properties of algorithmic languages including scope of declarations, storage allocation, grouping of statements, binding time of constituents, subroutines, co-routines, and tasks. List processing, string manipulation, data description, and simulation languages. Run-time representation of program and data structures.

521N Computing for Engineers and Scientists (4)

Prereq: differential equations. Principles and practice of computer solution of problems involving extensive numerical calculations as found in physical sciences, engineering, and numerical mathematics.

522 Computing with Statistical Packages (4)

Prereq: statistics. Approximately half of course devoted to programming solutions to problems using FORTRAN, PASCAL, or PL/I. Emphasis on problem analysis, syntax, testing, and debugging of computer solutions to problems. Second half devoted to study of use of such statistics packages as SPSS for solution of statistical problems encountered in study of social, biological, and educational sciences.

529 Topics in Computer Science for Elementary and Secondary Teachers (1-5)

Selected topics in computer science of interest to teachers in grades K-12. (May be repeated for credit.)

540N Computer Organization (4)

Organization of digital computer. Data representation and internal transfer. Digital arithmetic logic unit, control section, and timing. Input-output devices and channels. Software-hardware interfaces.

542 Operating Systems and Computer Architecture I (4)

Prereq: 540. In-depth coverage of computer operating systems and related computer architecture issues. Coverage of physical devices, interrupts, and communication between the computer and external hardware. Interfaces between user programs and the operating system, system calls, software interrupts, and protection issues. Context switching, process address spaces, and process scheduling. Process synchronization, interprocess communications, critical sections, and deadlock detection and recovery. Memory mapping, swapping, paging, and virtual memory.

544 Data Communications (4)

Prereq: 542. In-depth coverage of computer-to-computer and program-to-program communication over modern computer networks focusing on the TCP/IP protocol family. Review of data communication issues, physical address binding, bridging, Ethernet, and Token Ring. Internetwork protocols, routing, domains, networks, and subnetworks. Transport protocols, reliability, flow control, retransmission, and acknowledgment. Distributed systems, server and client issues including verification, and authentication. High-level protocols and applications including electronic mail, network news, remote terminal interaction, and the World Wide Web.

556 Software Design and Development (4)

Prereq: 520 and 561. Review of program language structures, translation, loading, execution, and storage allocation. Compilation of simple expressions and statements. Organization of compiler including compile-time and run-time symbol tables, lexical scan, syntax scan, object code generation, error diagnostics, object code optimization techniques, and overall design.

558 Operating Systems and Computer Architecture II (4)

Prereq: 542. Continuation of 542. Detailed discussion of virtual memory and backing stores. File system interfaces, implementation, and protection mechanisms. Process scheduling issues, policies, and mechanisms. Interprocess communication between programs on different computers. Distributed systems issues, examples, and implementation.

561N Data Structures (4)

Prereq: 500. Basic concepts of data. Linear lists, strings, arrays, and orthogonal lists. Representation of trees and graphs. Storage systems and structures, and storage allocation and collection. Multilinked structures. Symbol tables and searching techniques. Formal specification of data structures, data structures in programming languages, generalized data management systems.

562 Database Systems I (4)

Prereq: 561. The course introduces fundamental concepts in data modeling and relational database systems. It begins with ER modeling technique as a tool for conceptual database design. Relational data model and relational algebra are introduced next. Two database query languages, Tuple Relational Calculus and SQL/3, are discussed, followed by normalization theory and file organization and access methods.

563 Database Systems II (4)

Prereq: 562. Primary focus is on relational database system implementation techniques and recent and emerging database technologies. More specifically, query processing and optimization techniques and transaction management concepts are examined in greater depth. Object-oriented databases, distributed and multidatabases, and deductive database systems are discussed. Overview of merging database technologies including spatial databases, geographic information systems, scientific and statistical databases, CAD/CAM databases, image databases, and multimedia database systems.

564 Information Storage and Retrieval Systems (4)

Prereq: 562. Introduction to both fundamental and advanced concepts in modern information retrieval. Approaches and algorithms for automatic indexing are discussed. File and access structures for implementing information retrieval systems are studied. Several information retrieval models are investigated in detail. Methods for quantifying retrieval effectiveness and enhancing retrieval effectiveness via user relevance feedback are examined. Hypertext/hypermedia principles are introduced and distributed hypermedia systems studied.

580 Artificial Intelligence (4)

Prereq: 520 and 561. Definition of heuristic vs. algorithmic methods, rationale of heuristic approach, description of cognitive processes, and approaches to mathematical invention. Objectives of work in artificial intelligence, simulation of cognitive behavior, and self-organizing systems. Heuristic programming techniques including use of list processing languages. Survey of examples from representative application areas. Mind-brain problem and nature of intelligence. Class and individual projects to illustrate basic concepts.

581 Information Organization and Retrieval Projects (5-15)

Prereq: 556 and 564. Project course in information organization and retrieval. Each student must complete a project successfully and present results. Lectures by instructor and guest speakers.

582 Artificial Intelligence Practicum (4)

Prereq: 580. Work on a major project in one of the basic areas of AI investigation. These include natural language processing, vision simulation, intelligent database systems, heuristic state-space search, and inferential networks. Emphasis on program self-modification through feedback mechanisms.

590 Special Problems in Computer Science (5-15)

Special project in one of various subfields of computer science or application area studied, investigated, and/or solved by individual student or small group working in close relationship with instructor. Suitable problems might include construction of compiler for special purpose artificial language, perfection of computer code to solve some significant problem, or study of coherent subfield or computer science. May be repeated for credit.

599 Elementary Topics in Computer Science (1-15)

Special topics omitted in student's undergraduate preparation for graduate study. May be repeated for credit.

601 Mathematical Models of Sequential Machines (4)

Prereq: 500. Definition and representation of finite state automata and sequential machines. Equivalence of states and machines, congruence, reduced machines, and analysis and synthesis of machines. Decision problems of finite automata, partitions with substitution property, generalized and incomplete machines, semigroups and machines, probabilistic automata, and other topics.

604 Advanced Algorithms (4)

Prereq: 504 or 506. Advanced topics in the design and analysis of algorithms are explored. These topics include the theory of NP-completeness, NP-hard optimization problems, polynomial-time approximation algorithms, approximation schemes, approximability and non-approximability results, randomized algorithms, and parallel algorithms. Juedes.

605 Parallel Computation Theory (4)

Prereq: 504 or 506. Topics in the theory of parallel computation are explored. These topics include the PRAM model, the Boolean circuit model, uniform circuit families, parallel complexity classes, reducibility, P-completeness, and the approximation of P-complete problems. *Juedes*.

606 Computational Complexity (4)

Prereq: 506. The complexity of computational problems is explored with respect to a variety of complexity measures. Topics of study include deterministic time complexity, nondeterministic time complexity, the polynomial-time hierarchy, average-case time complexity, space-bounded complexity, circuit complexity, reductions, relativizations, and parallel models of computation. *Juedes*.

612 Real Time Systems (4)

Prereq: 511, 556, 558. Discusses real-time systems and their design principles. Studies the particular characteristics of these systems and some real-time programming languages.

613 Parallel Computing II (4)

Prereq: 512. Continuation of Parallel Computing I. Parallel algorithms discussed include: sorting and fast Fourier Transform, dictionary operations, matrix operations, recurrence relations, partial differential equations, Gaussian elimination, graph algorithms, combinatorial search, and logic programming.

620 Compiler Construction (4)

Prereq: 510. Fundamental and advanced topics in compiler design are explored. These topics include lexical analysis and scanner generation, syntax analysis and parser generation, semantics analysis and attribute grammars, code generation, and code optimization. *Cai*.

621 Parallel Compilers (4)

Prereq: 620. Fundamental and advanced topics in parallelizing compilation techniques for parallel systems are explored. These topics include data dependence, scalar analysis, loop restructuring, optimization for locality, and concurrency analysis. *Cai*.

644 Advanced Topics in Computer Networking (4)

Prereq: 544. High-speed networking, experimental protocols, congestion control, reliability, security, distributed systems. *Ostermann*.

651 Modeling and Analysis of Computer Systems (4)

Prereq: 542, 562, and MATH 550. Computer systems characterized by hardware, software, and operating environment which can be evaluated. Models of portions or functions of batch, timesharing, or real-time computer systems developed and analyzed. Simulation, queuing, scheduling methods, and probability and statistics used as tools.

652 Modeling and Analysis of Computer Systems (4)

Prereq: 651. Continuation of 651.

657A Software Specification (4)

Prereq: 556. Analysis, specification, and planning of a software system—user's view. Requirements analysis, block diagram and prototype, user manual, test plan, estimates of effort, and schedule of reviews for 657B.

657B Software Design (4)

Prereq: 657A. Module specification, project data base configuration—implementor's view. Module interface specifications, module bodies in Program Design Language (PDL), module test plans, estimates of effort, and schedule of reviews for 657C.

657C Software Implementation (4)

Prereq: 657B. Module body coding, unit test, integration, system test, and acceptance.

680 Advanced Topics in Artificial Intelligence (4)

Prereq: 580. Advanced topics in artificial intelligence (AI) are studied. The concepts of heuristic search and knowledge representation are studied in detail to provide a firm grounding in AI. Then an advanced topic will be studied, such as machine learning, natural language understanding, computer vision, and/or reasoning under uncertainty. The emphasis is to illustrate that representation and search are fundamental issues in all aspects of artificial intelligence. *Chelberg*.

681 Research in Computer Science (1-6)

F, W, Sp, Su; Y.

690 Selected Topics (1-4)

Selected topics of current interest in computer science. F, W, Sp; Y.

695 Thesis (1-9)

Thesis research in computer science. F, W, Sp, Su; Y.

698 Graduate Research Seminar (1)

Research seminar for graduate students in computer science. F, W, Sp, Su; Y.

Chemical Engineering

Programs leading to M.S. and Ph.D. degrees are offered with research emphasis particularly in the areas of coal conversion and utilization, polymerization reaction engineering, process control and dynamics, biochemical engineering, atmospheric chemistry, corrosion and multiphase flow, semiconductor materials, and separation processes. Interdisciplinary efforts are also underway in some areas.

The basic requirement for admission to the M.S. program is a B.S. in chemical engineering. The Test of English as a Foreign Language (TOEFL) is required of international students, and the Graduate Record Exam (GRE) is required of any student seeking financial aid. Special programs of study leading to the M.S. in chemical engineering are possible for students who have received a bachelor's degree in another scientific or engineering field. These special programs require completion of some portion of undergraduate chemical engineering courses and are generally available only to exceptionally well-qualified students. Inquiries are invited.

An M.S. in chemical engineering or an appropriate related area is required for candidacy in the Ph.D. program in most cases. Students with exceptional qualifications may be admitted directly to the Ph.D. program. Inquiries are invited.

If you are working toward the M.S., you are expected to take a minimum of 30 credit hours of graded coursework. The following courses must be included in the chemical engineering area: 600, 601, 604, and 642. You also must complete a thesis requiring a minimum of 30 credit hours of work. All graduate students must maintain a minimum g.p.a. of 3.0 overall and in departmental courses.

A nonthesis option is available for students having proven research competence. This program requires a minimum of 45 credit hours of graded coursework. A special topic investigation extending over two or more quarters is required of all nonthesis participants. The special project requires a minimum of 15 credit hours of work.

You are encouraged to take coursework outside the department in other engineering disciplines and in related areas such as mathematics, chemistry, and physics. All graduate students are expected to participate in departmental graduate seminars when offered.

If you are working toward a Ph.D., you will take courses and appropriate work as required to fulfill a program of study determined by you and your advisory committee and acceptable to the departmental graduate committee. A minimum of three 700-level courses are required. The Ph.D. qualifying examination, normally given twice a year, is a prerequisite for unconditional admission to the doctoral program. No student will be allowed to attempt the exam more than twice. After you have completed your course-work, you will be required to take a comprehensive examination consisting of the oral and written presentation of a research proposal in an area unrelated to your dissertation topic.

Chemical Engineering Courses (CHE)

520 Coal Conversion Technologies (3)

Coal characterization. Introduction to fixed bed, fluid bed, and entrained bed operations. Equilibrium and kinetic predictions. Coal gasification and liquefaction processes.

530 Advanced Metallic Corrosion (3)

Review of basic principles and current theories of stress corrosion and embrittlement, corrosion fatigue, and transgranular and intergranular corrosion. Some laboratory work using recent techniques and apparatus. 4 lec.

540 Process Modeling and Control (3)

Digital computer control in chemical engineering. State space concepts and their application in process control.

548 Chemical Process Safety (3)

Safety and loss prevention of chemical processes. Hazards, hazard analysis, operability studies. Use of alarms, trips, and interlocks.

550 Fundamentals of Material Analysis (3)

An overview of both classical and modern techniques of materials analysis. Topics covered range from classical optical spectroscopies (IR, FTIR, Raman, UV/VIS) to such modern surface techniques as AES, XPS, (ESCA), and RBS.

560 Atmospheric Pollution Control (4)

Sources of air pollution from major industries, internal combustion engines, and other sources. Techniques available for measuring particulates and gaseous pollutants in atmosphere and at their sources. Techniques available for control and future possibilities for control of air pollution. Bases for air pollution legislation.

577 Polymer Synthesis and Properties (3)

Polymer classifications and nomenclature, reaction mechanisms, reaction kinetics, characterization techniques, reactor design and modeling, manufacturing processes, and polymer processing techniques.

581 Biochemical Engineering (3)

Study of processes in chemical engineering that depend on biological systems. An overview of biological basics, enzyme kinetics, major metabolic pathways, cell growth characteristics, essentials of recombinant DNA technology, bioreactor design and control, and an introduction of purification methods.

582 Topics in Bioseparations (3)

Basic techniques such as cell disruption, centrifugation, precipitation, micro- and ultrafiltration, and various forms of chromatography for the separations of biomolecules, especially proteins, are introduced. Some emphasis on preparative and large-scale applications.

600 Applied Chemical Engineering Calculations (5)

Linear and nonlinear algebra, ordinary and partial differential equations, optimization, and regression. Extensive treatment of numerical techniques for nonlinear problems. Computer modeling.

601 Advanced Chemical Engineering Thermodynamics (5)

Chemical engineering processes, pure materials, and mixtures. Criteria of equilibrium for homogeneous and heterogeneous systems. Correlation and estimation of properties; thermodynamic consistency tests.

604 Chemical Reaction Engineering (5)

Homogeneous and heterogeneous kinetics, isothermal and non-isothermal reactor design, non-ideal flow, axial dispersion, mass transfer and reaction, catalysis, multiphase systems.

620 Manufacturing Materials (4)

Examines interrelationship among chemical and physical structure, properties, and processability of materials. Emphasis on the effect of this interrelationship on the final properties of manufactured products.

632 Modern Composite Materials (4)

Survey of the different types of composite matrix and reinforcement materials. Also covered are mechanical and thermal properties and properties of strength and fracture in composites.

642 Transport Phenomena (5)

Theoretical basis of development of heat, mass, and momentum transfer. Boundary layer theory and comparison with other theoretical and semitheoretical approaches.

645 Separation Processes (4)

The description, selection, and modeling of separation processes including crystallization, leaching, extraction, distillation, absorption, filtration, membrane and diffusional processes, and fixed bed sorption. Similarities of separation processes based on models of operation are emphasized.

647 Computer-Aided Process Design and Simulation (4)

Use of ASPEN process flowsheet simulator to solve chemical process design problems. Non-ideal vapor-liquid equilibrium. Multicomponent separations. Processes with recycle streams.

690 Special Topics in Chemical Engineering (1-6)

Advanced study in a particular field of chemical engineering.

691 Seminar (1)

Special presentations by internal and external speakers.

695 Thesis (1-15)

700 Advanced Chemical Engineering Mathematics (3)

Prereq: 600. Advanced study in applied mathematics in chemical engineering. Restricted to small groups with extensive student participation required.

702 Perturbation Methods (3)

Prereq: 600. Application of perturbation methods to fluid mechanics and heat transfer. Basic solutions using potential flow, conformal mapping, and separation of variables. Asymptotic solutions using regular and singular perturbation methods.

709 Advanced Chemical Reaction Engineering (3)

Prereq: 604. Advanced study in chemical engineering reactor kinetics and design. Extensive student participation required.

730 Advanced Corrosion (3)

Prereq: 530. Advanced study in corrosion. Restricted to small groups with extensive student participation required.

740 Process Dynamics (3)

Prereq: 540. Advanced study in chemical engineering process dynamics. Restricted to small groups with extensive student participation required.

741 Advanced Process Control (3)

Prereq: 540. Advanced study in analog, hybrid, and digital computer control theory. Restricted to small groups with extensive student participation required.

742 Advanced Chemical Engineering Momentum Transfer (3)

Prereq: 642. An analysis of the flow of fluids and the transport of momentum and mechanical energy. The differential equations of fluid flow, potential flow, flow in porous media, flow in fixed and fluidized beds, laminar boundary layer theory, and non-Newtonian fluids.

744 Advanced Chemical Engineering Mass Transfer (3)

Prereq: 642. Topics covered include theory of diffusion, interphase mass transfer theory, turbulent transport, mass transfer in porous media, mass transfer with chemical reaction, simultaneous mass and heat transfer, multicomponent microscopic balances.

777 Turbulence and Advanced Topics and Fluid Flow (3)

Introduces theoretical and practical aspects of turbulence in chemical engineering. Topics include introduction to turbulence and its measurement, time and space correlations, two equation models, and other specialized topics based on student interest.

895 Dissertation (1-15)

Civil Engineering

In civil engineering, programs for the Master of Science are offered in geotechnical, environmental, geoenvironmental, structures, solid mechanics, water resources, and transportation areas. A program leading to the Ph.D. in integrated engineering with a specialty in the geotechnical and environmental areas is also offered (see "Integrated Engineering").

A B.S. in civil engineering is a basic requirement for entrance to the M.S. program. An undergraduate g.p.a. of 3.0 or better is required for unconditional admittance.

Applications are invited from engineering and science graduates. Collateral work to remedy deficiencies of those without civil engineering degrees may be carried out in conjunction with the M.S. program. Collateral requirements will depend upon your preparation in the major field of study.

You may choose either the thesis or the nonthesis plan (at least 33 credits of graduate coursework plus 12 credits of thesis, or 45 credits of graduate coursework including three to five credits of a special investigation, respectively). Students who are supported by research funds are normally required to follow the thesis option.

You must pass an oral examination before a recommendation for the degree is made.

The Department of Civil Engineering recommends that students begin in the fall quarter. There is no deadline for financial aid application; most awards, however, are made during spring quarter for fall entrance.

Civil Engineering Courses (CE)

500N Preparation for Graduate Studies (1–10)
Course designation to be used by graduate students needing preparation for civil engineering courses. Not for graduate credit for civil engineering majors.

515 Photogrammetry (3)
Prereq: 210. Equipment and methods used in aerial photography and land measurement. 2 lec, 2 lab. *Kaneshige; Sp; Y.*

520 Finite Element Methods in Engineering (3)
Background theory, formulation, and application to one- and two-dimensional problems and techniques for analysis. Structures, consolidation, and wave propagation. *Sargand; F; Y.*

523 Continuum Mechanics (4)
Matrix methods in mechanics and structures; law of dynamics; mechanical properties of solids and fluids; basic theories of continuum mechanics. 4 lec. *Hazen; W; D.*

524 Strength of Materials II (3)
Theories of failure, unsymmetrical bending, shear center, and other topics not covered thoroughly in undergraduate course. For nonmajors in civil engineering. 3 lec. *F; Y.*

525 Advanced Strength of Materials (4)
Advanced treatment of theories of failure, stresses, and strains at a point, cross shear, unsymmetrical bending, curved beams, torsion, thick-walled cylinders, energy methods. 4 lec. *F; D.*

526 Theory of Stability (3)
Buckling of columns, beam columns, plates, and rings. 3 lec. *Hazen; F; D.*

527 Experimental Stress Analysis (3)
Prereq: 524 or 525. Elasticity theory; theory and use of mechanical, electrical, and other strain-measuring devices including photo-elastic equipment. 2 lec, 3 lab. *Hazen; Sp; Y.*

528 Theory of Elasticity and Applications (3)
Equations of equilibrium and compatibility; stresses and strains in beams, curved members, thick cylinders, torsion, and structural members. *Hazen; W; D.*

529 Mathematical Theory of Elasticity (3)
Prereq: 528. Fundamental equations and problems of elasticity theory; methods of stress functions and displacement potentials; finite element applications. *Hazen; S; D.*

531 Experimental Methods in Structural Dynamics (3)
Modal analysis of structural models to identify their vibration characteristics. Frequency response functions using dual-channel signal analyzers. Mobility measurement techniques. Modal parameter extraction techniques. Computer-aided structural dynamics. *W; D.*

532 Structural Dynamics (3)
Prereq: ME 591. Dynamic analysis of structures with multi-degree of freedom. Free and forced vibration analysis of elastic beams, frames, grids, and trusses. Earthquake and wind-induced vibration of high-rise buildings and bridges. Classical and computer methods. *F; D.*

533 Advanced Structural Theory I (3)
Analysis of indeterminate structures by both classical and modern methods. Energy theorems; method of finite differences; column analogy. *F; Y.*

534 Advanced Structural Design (4)
Modern design concepts and principles as applied to various construction materials. *Sp; D.*

536 Advanced Reinforced Concrete Design (3)
Prereq: 534. Advanced design of reinforced concrete structural members. *Simmons, Steinberg; D.*

537 Timber Design (3)
Prereq: 330. Material properties and behavior of structural timber. Analysis and design of sawed timber and laminated timber members. Timber connection analysis and design. *Steinberg; Sp; D.*

538 Prestressed Concrete Design (3)
Theory of prestressing, design and analysis of prestressed concrete beams, slabs, box girders, and bridge girders by elastic and ultimate strength methods. *Simmons, Steinberg; D.*

539 Computer-Aided Structural Design (3)
Analysis and design of complete structural systems by computer. Reinforced concrete, structural steel, and other applicable materials. Design reports and cost estimation of projects. *Steinberg; F; Y.*

540 Deterministic Approaches in Water Resources (3)
Prereq: 343. Flood routing and overland-flow theory. Parametric hydrology, linear and nonlinear analysis of rainfall-runoff systems, unit and instantaneous unit hydrograph. Conceptual models for hydrologic watershed. *Chang; W; D.*

541 Stochastic Hydrology (3)
Prereq: 343. Probability distributions applicable to hydrologic events; analysis of extremes, floods, and droughts; statistical associations between hydrologic variables. Analysis of hydrologic time series. Spectral and parametric formulation of stochastic models of precipitation, runoff, precipitation-runoff transfer. *Chang; Sp; D.*

542 Applied Hydraulics (3)
For nonmajors in civil engineering. Flow and pressure distribution in multi-loop networks, dynamics of flow in pumps and turbines. Uniform and nonuniform flow in open channels, culvert hydraulics, hydraulic transients. 2 lec, 2 lab. *Chang; Sp; Y.*

543 Open Channel Hydraulics (3)
Prereq: 342. Principles of uniform and varied flow. Channel design for uniform flow, gradually varied flow profiles, channel transitions, hydraulic jumps, flow in prismatic and non-prismatic channels. 3 lec. *Chang; F; Y.*

545 Design of Hydraulic Structures (3)
Prereq: 342. Design flood peaks, flood hydrograph, spillway, penstock, and river channel regulation. *Chang; Sp; Y.*

553 Solid/Hazardous Waste Management (3)
An introductory course to identify, classify, and study methods of handling, treating, and managing solid/hazardous waste. *Mitchell; F; Y.*

555 Advanced Water Treatment (4)
Prereq: 450, 452. Advanced study of theory. Design of physical/chemical treatment units. Practice in control methods. 3 lec, 3 lab. *Mitchell; W; Y.*

556 Advanced Waste Water Treatment (4)
Prereq: 451, 452. Advanced study of theory. Design of biological treatment units. Practice in control methods. 3 lec, 3 lab. *Edwards, Mitchell; Sp; Y.*

558 Water Quality Engineering (3)
Natural and man-made characteristics of water quality, changes in quality resulting from use, criteria for control of stream pollution, methods of improving water quality, legal and economic aspects. *Sp; D.*

559 Surface Water Quality Modeling (3)
Prereq: 450, 451. An advanced course on the fundamentals and principles that underlie the mathematical modeling techniques used to analyze the quality of surface waters. *Mitchell; F or Sp.*

561 Environmental Analysis Transportation Systems (3)
Prereq: perm. The role of environmental assessment in transportation planning and project development is addressed. *Herman; F; D.*

562 Traffic Engineering (3)
Prereq: perm. Vehicle and driver characteristics, uses of traffic control devices, intersection design and capacity, parking characteristics. *W; Y.*

563 Traffic Parameters (4)
Vehicle-highway relationships: vehicle performance and highway geometry, highway capacities and their influence on design. *Herman; F; D.*

564 Transportation Planning (4)
Introduction to traffic survey methods, data collection, evaluation. Topics include origin-destination, speed, parking, accident, and future development studies. *Herman; W; D.*

565 Traffic Regulations and Controls (4)
Prereq: 563. Typical traffic ordinances and regulations and their use in controlling traffic through use of signs, markings, control devices, and traffic signals, including their use as single units or as a progressive series. *Sp; D.*

566 Transportation Design (3)
Prereq: perm. Design of highways, interchanges, intersections, and facilities for air, rail, and public transportation. *Herman; F; D.*

567 Traffic Studies I (1–4)
Prereq: 564. Practical problems relating to traffic surveys and data analysis. *Herman; Sp; D.*

568 Traffic Studies II (1–4)
Prereq: 565. Practical problems relating to vehicular characteristics and traffic movements. *Herman; W; D.*

570 Soil Engineering (4)
For non-civil engineering majors. Soil composition, physical and chemical properties, and classifications. Water movement and seepage problems; stress distribution, settlement, and shear strength. Applications to earth structures, retaining walls, foundations, and slope stability. 3 lec, 2 lab. *Masada, Sargand; W; Y.*

572 Soil Mechanics I (3)
Water movement through soil; construction and interpretation of flow nets. Elastic equilibrium, stress distribution, compressibility and settlement of cohesive and noncohesive soil; consolidation theory. 2 lec, 2 lab. *Sargand; F; Y.*

573 Soil Mechanics II (3)

Prereq: 572. Shearing strength. Plastic equilibrium, lateral soil pressures, stability of footings (bearing capacity), retaining walls, and slopes. 2 lec, 2 lab. *Sargand; W; D.*

574 Advanced Soil Mechanics Laboratory (1)

Prereq: 572, 573. Advanced techniques for measurement of soil engineering properties. 3 lab. *Masada, Sargand; Sp; D.*

575 Advanced Foundation Engineering (3)

Prereq: 471. Design of shallow and deep foundations for complex or unusual soil conditions; design of earth retaining structures including retaining walls, cofferdams, and sheet pile bulkheads; site improvement; performance evaluation and instrumentation. *Sargand; Sp; D.*

576 Soil Stabilization (4)

Engineering, geological, and pedological soil classification systems. Mineralogy of clay minerals and claywater systems; requirements for and factors affecting soil stability. Methods and mechanisms of soil stabilization; designing and testing stabilized soils. 3 lec, 3 lab. *F; D.*

582 Paving Materials and Mixtures (3)

Types, constituents, chemical behavior, tests, specifications, and uses of bituminous materials. Portland cements and aggregates in pavements. Design and manufacture of paving mixtures and construction of pavements. 2 lec, 3 lab. *Kim; W; D.*

583 Principles of Pavement Design (3)

Fundamentals of wheel loads and stresses in pavements. Properties in pavement components and design tests. Design methods and evaluation. 3 lec. *Sp; D.*

584 Constitutive Equations (3)

Stress; strain; linear and nonlinear theories of elastic media; stress path; introduction to plasticity. *Sargand; Sp; A.*

585 Soil-Structure Interaction (3)

Beams and plates on elastic foundations, axially and laterally loaded piles; retaining walls; interface elements; construction sequences. *Sargand; W; D.*

586 Theory of Plates and Shells (3)

Bending of rectangular and circular plates, small and large deflection theory, membrane and bending shell theory. *Hazen, Sargand; F; D.*

588 Soil Dynamics (3)

Vibration of elementary system, wave propagation, behavior of dynamically loaded soil, analysis and design of foundations for vertical vibration-rocking vibration. *Sargand; F; D.*

590 Special Investigations (1-5)

Special investigations or problems not covered by formal courses and not requiring thesis. *F; W, Sp, Su; Y.*

625 Finite Element Methods in Mechanics (3)

Development of elements from variational principles. Application of finite element methods in static and dynamic continuum problems; computational techniques; interpretation of results. *D.*

630 Active Structures (3)

Prereq: Perm. Advanced analysis, design, and control for active structures. Multi-criteria design optimization for modular active structures. Dual listed as ME 630.

653 Environmental Geotechnology I (4)

Prereq: 370 or 450 or 451. Presents the theoretical basis and in-situ/laboratory practices of geo-environmental methods. 3 lec. 3 lab. *Masada, Mitchell, Sargand; W; Y.*

691 Civil Engineering Seminar (1)

Presentation on research topics by students. Typically take in final year of graduate study. *Mitchell; Sp.*

694 Research (1-6)

For thesis.

695 Thesis (1-15)**710 Energy and Variational Principles (3)**

Prereq: 592. Provides a solid foundation in variational calculus and energy methods as applied to solid mechanics. Approximate techniques are formulated for geotechnical problems. *Sargand; Sp; D.*

723 Continuum Mechanics II (4)

Prereq: 523. Tensor notation and application. Global behavior of solids, liquids, or gases under the influence of external disturbances. Basic laws of physical phenomena. *Hazen; Sp; D.*

730 Finite Element Methods II (3)

Formulation and application to two- and three-dimensional problems and techniques for analysis in fluid mechanics, elastostatics, elastodynamics, and heat conduction. *Sargand; F; D.*

743 Stochastic Modeling (3)

Prereq: MATH 550A or ISE 504. Review of probability theory, stochastic analysis, geostatistics, analysis of random processes, and applications of stochastic modeling in engineering. *T. Chang; F; D.*

750 Design of Water Treatment Facilities (3)

Prereq: 555 and 491B. Selection of processes/operation and design of water treatment facilities. *G. Mitchell, H. Kaneshige; W; D.*

751 Sludge Treatment Processes (3)

Prereq: 555 and 556. Characterization of waste sludges from primary, chemical, and biological treatment; design of sludge treatment processes. *G. Mitchell, H. Kaneshige; F; D.*

752 Industrial Waste Treatment (3)

Prereq: 555 and 556. Classification, characterization, and study of industrial wastes by industrial category. Selection and combination of unit processes/operations for treatment. *G. Mitchell; Sp; D.*

757 Subsurface Remediation (3)

Engineering design of systems to clean up contaminated soil and water above and below the water table. Physical, biological, and chemical methods. Emphasis on state-of-the-art technologies and most appropriate technology for a given site. *Edwards, Stuart; F; D.*

790 Special Topics in Civil Engineering (1-5)

Special topics or problems not covered by formal courses. *Mitchell.*

853 Environmental Geotechnology II (3)

Prereq: 653. Addresses the technical and practical engineering issues of containment of wastes and restoration of contaminated and/or disturbed portions of the geoenvironment. *Masada, Mitchell, Sargand; Sp; Y.*

885 Soil-Structure Interaction (4)

Prereq: 520 and 572. Beams and plates on elastic foundation; axially and laterally loaded piles; retaining walls; interface elements; construction sequences..

Electrical Engineering and Computer Science

Programs leading to the Master of Science and Doctor of Philosophy degrees are offered. Major areas of study include avionics, computers, applied and theoretical computer science, communications, controls, information theory, solid-state electronics, energy conversion, power electronics, power systems, electromagnetics, signal processing, manufacturing, VLSI design, computer vision, electronic circuits, and opto-electronics.

To be considered for entrance into the master's program, you must have a B.S. in electrical engineering or an equivalent degree in physical science, mathematics, computer science, or engineering. Deficiencies must be made up by self-study or by auditing (or taking without graduate credit) appropriate undergraduate courses.

Graduate Record Examination scores are required of all applicants. However, if you have a B.S. in electrical engineering from an accredited (ABET) electrical (or electrical and computer) engineering program, you can request exemption from this requirement.

To be admitted to the Ph.D. program, you must have an M.S. in electrical engineering or equivalent in the physical sciences, mathematics, computer science, or engineering. If you do not have an M.S. in electrical engineering, you must enroll in courses as specified by the graduate committee.

The M.S. requires 45 quarter hours including 9 hours of thesis or, by permission, 48 quarter hours including 3 hours of project, and a grade of B or better in at least three of the following core courses: 506, 528, 543, 555, 561, 562, 571, 570, 590 C++ with Manufacturing Applications, and 616. A description of the requirements for the M.S. with a computer science concentration is available in the EECS office. The Ph.D. requires at least 15 quarter hours of formal coursework at the 600-level or above beyond the M.S. and a minimum of 72 hours of dissertation. You are required to pass a comprehensive examination near the completion of your coursework.

You are encouraged to enter the program in the fall quarter. However, students are accepted in other quarters.

Financial assistance is available in EECS through Stocker Research Associateships; teaching, graduate, and research associateships; and scholarships. Teaching, graduate, and research associates are required to work in the school roughly 20 hours a week. All financial assistance is awarded on a competitive basis. Stocker Research Associateships are awarded to students who show a knack and interest for research; as a consequence, students who receive these awards are required to perform research duties over the duration of the award. Teaching and graduate associateships are awarded to students judged to be the most qualified for positions supporting the teaching activities within the school. Research associates support various sponsored research projects within the department; as a consequence, selections for these positions are made by individual faculty responsible for the research projects.

Electrical Engineering Courses (EE)

505 Semiconductor Principles I (3)

Simplified one-dimensional band theory of solids. Valence and conduction band occupancy from Fermi-Dirac statistics. Hole conduction and doping. Derivation of PN junction volt-amp-temperature characteristic. DC and AC characteristics of junction transistors derived from fundamentals. *Curtis; Sp; D.*

506 Advanced Electronic Circuits I (3)

Advanced analog circuitry. Operational amplifiers, characteristics, limitations. Linear and nonlinear applications. Feedback, stability criteria compensation, time and frequency response. Waveform generation and shaping, timing, comparison, arithmetic operations. *Curtis; W; Y.*

507 Advanced Electronic Circuits II (3)

Advanced digital circuitry. Basic logic operations, digital device families and characteristics. Arithmetic, counting, memory, other MSI and LSI functions. Numeric display devices. Analog/digital conversion. *Curtis; F; Y.*

510 Semiconductor Principles II (3)

Prereq: 505. Continuation of 505. Application of semiconductor theory to solid state devices; diodes, transistors, FETs, and Gunn effect devices. Charge control analysis. Ebers-Moll equations. Electro-optical effects. *Curtis; Sp; D.*

511 Analog Filters I (3)

Principles of filter synthesis, positive-real functions, synthesis of one-port networks, synthesis of two-port networks, approximation, frequency transformations, and filter design. *Mokari; F; Y.*

512 Analog Filters II (3)

Prereq: 511. Principles of active filter synthesis, active filter elements, realization of active two-port networks, multiple feedback filters, explicit formulas and practical filter design. Sensitivity and non-ideal filter elements. Switched capacitor filters. *Mokari; W; Y.*

513 Digital Filter Design (3)

Prereq: 511 and 512. Principles of digital filter design, z-transform, discrete Fourier transform, representations of digital filters, digital filter hardware implementations, and computer-aided design of digital filters. *Mokari; Sp; A.*

514 VHDL Design (4)

Prereq: perm. Application of very high speed hardware description languages (VHDL) for digital design, simulation, verification, and specification. Structural design concepts, design tools. VHDL language, data types, objects, operators, control statements, concurrent statements, functions, and procedures. VHDL modeling techniques, algorithmic, RTL, and gate level designs. Design synthesis. 3 lec, 2 lab. *Starzyk; F; A.*

515 VLSI Design I (3)

Prereq: 505. Introduction to very large scale integration (VLSI) technology and design of CMOS integrated circuits. VLSI fabrication process; design rules; logic design; performance estimation; chip engineering; computer aids to VLSI design. 3 lec, 2 lab. *Starzyk; W; Y.*

516 VLSI Design II (3)

Prereq: 515. Sequential system design, clock generation and clocking disciplines, design validation, sequential testing, standard cell layout, adders, ALUs, multipliers, high density memory, PLA design, floorplanning, I/O architecture, register transfer design, datapath control, high-level synthesis. 3 lec, 2 lab. *Starzyk; Sp; A.*

525 Control Theory I (3)

Formulation of linear models for lumped-parameter physical systems, fundamental principles of closed-loop control, signal flow graphs. Routh-Hurwitz criteria; Root locus method, Bode plots; introduction to control system using Root locus and Bode plots. Special problem required. *Lawrence; Irwin; F; Y.*

526 Control Theory II (3)

Prereq: 525. Nyquist stability criterion, Nichols charts, cascade and feedback compensation, frequency domain performance specifications, minor loop design. Special problem required. *Lawrence; W; Y.*

527 Control Theory III (3)

Prereq: 526. Sampled-data systems, z-transforms, sampled data system design using digital compensators; state-space concepts. *Lawrence; Sp; Y.*

528 State Variable Methods in Control (3)

Basic state variable concepts, writing state equations, time-domain solution of the state equation and the matrix exponential, relations to transfer functions, controllability and observability, stability, state variable methods of design including state feedback and state estimation. *F; A.*

529 Robotics for Electrical Engineers (3)

Prereq: perm. An introduction to robotics. Topics include robot configurations, forward and reverse kinematics, dynamics and joint servo control. *Nurre; W; Y; 1997.*

531 Introduction to Lasers I (3)

Introduction to the important modern optical devices, lasers, and their applications. Emphasizes the basic physical theory needed to understand lasers, their construction, and their applications. A detailed discussion of various types of lasers and their characterization. *Lozykowski; W; Y.*

532 Introduction to Lasers II (3)

Prereq: 531. Continuation of 531. Additional theoretical material discussed begins with Maxwell's equations, examines electromagnetic issues that play a major role in laser oscillations—amplification and feedback. Characterization of lasers and continuing discussion of laser types and their applications. *Lozykowski; Sp; Y.*

533 Optoelectronic Materials and Devices (3)

Introduction to modern optical materials and devices using semiconductors technology, the optical integration of these devices, and their application in diverse fields. Both fundamentals of devices and materials are emphasized. *Lozykowski; W; D.*

540 Microwave Theory and Devices (3)

Transmission lines, Smith chart, impedance matching, waveguides, survey of devices (microwave generators, semiconductor devices, etc.). *Radcliff.*

541 Antennas I (3)

Fundamental concepts and definitions, radiation integrals and potentials functions, linear wire antennas, loops, arrays, matching techniques, antenna measurements, laboratory demonstrations. *Radcliff.*

543 Electromagnetics I (3)

Mathematical review of vector operations in coordinate-free form. Review of basic equations of electrodynamics. Some general properties of plane waves. Polarization of waves. Plane waves in isotropic media. Wave reflection from interfaces between general media. *H. Chen; F; A.*

554 Power Electronics (3)

Introduces the graduate student to power electronics. Covers most uses of semiconductor devices for the conversion and control of electric power: AC to DC, AC to AC, DC to DC, and DC to AC conversions; DC and AC motor drives. Semiconductor device characteristics (particularly those parameters not stressed in most undergraduate electronics courses) and device protection. *Hill; Sp; Y; 1990.*

555 Introduction to Electric Power System Engineering and Analysis (3)

Includes power system representation, computer methods, symmetrical components, protection methods, and stability. *Manhire; F; Y.*

556 Introduction to Electric Power System Engineering and Analysis II (3)

Prereq: 555. Continuation of 555. See 555 for description. *Manhire; W; Y.*

557 Introduction to Electric Power System Engineering and Analysis III (3)

Prereq: 556. Continuation of 555, 556. See 555 for description. *Manhire; Sp; Y.*

561 Digital Systems I (3)

Postulates and fundamental theorems of Boolean algebra; algebraic and map methods for design of combinational logic and simple sequential circuits; logic minimization methods; introduction to system design using shift registers, counters, etc. *Celenk; F; Y.*

562 Digital Systems II (3)

Prereq: 561. Basic concepts from theory of finite-state machines; analysis and synthesis of sequential circuits; study of state assignment; synchronous and asynchronous machines; system design using integrated circuits. *Celenk; W; Y.*

563 Digital Systems III (3)

Prereq: 562. Synthesis of sequential circuits using ROMs and RAMs for control logic. Introduction to computer organization and design including selection of instruction set, register and bus organization, and implementation of control logic with micro-programmed control. *Celenk; Sp.*

564 Engineering Applications of Expert Systems (3)

Prereq: with 495. Knowledge representation. The process of knowledge engineering. Areas in engineering for expert systems applications. Implementing engineering projects that involve a decision-making process, by using VP-Expert, a PC-based expert systems tool (cross-listed with CS 567). *Vassiliadis; W; Y.*

567 Microcomputers I (3)

Organization of several mini- and microcomputer systems. Theory and application of assemblers, loaders, etc. Numerous control and data acquisition problems programmed in assembly language on existing computers. Applications in wide range of areas studied. *Klock; F; Y.*

568 Microcomputers II (3)

Prereq: 567W. Continuation of 567W. *Klock; W; Y.*

570 Communication Engineering (3)

Unified approach to communications stressing principles common to all transmission systems. Review of Fourier series. Fourier integral and complex frequency techniques with emphasis on communication networks, time response and convolution, measurement of information, amplitude modulation (double and single sideband techniques), frequency modulation, sampling theory, pulse modulation systems, with emphasis on modern digital signaling techniques including PCM, DPCM, PAM, PDM, PPM, and DELTA modulation; fundamentals of random signal theory and its application to communication systems; noise figure, noise suppression techniques, and other related topics. *Essman; F; Y.*

571 Statistical Analysis (3)

Analysis of engineering problems using probabilistic and statistical concepts; probability, discrete and continuous random variables, distribution functions, means, moments, characteristic functions, statistical independence, correlation, estimation, and applications to engineering problems. *Essman; W; Y.*

572 Random Signals in Linear Systems

Introduction to random electrical signals and noise. Autocorrelation, cross-correlation, power spectra, Nth law detectors, matched filters, detection of signals in noise, optimum receivers, Bayes estimators. *Essman; Sp; Y.*

579 PCM Telemetry Systems (3)

Prereq: 571. In-depth study of pulse code modulation systems using total system error (sampling error, quantization error, and channel error). Uniform and nonuniform quantization; companding (u- and A- law); optimum quantization; coding, DPCM (differential pulse code modulation), LDM (linear delta modulation), ADM (adaptive delta modulation). Comparison of systems and trade-off analysis. *Essman; D.*

585 Electronic Navigation Systems I (3)

Principles and theory of operation of electronic navigation systems with emphasis on avionics; aircraft instrumentation, VOR DME, Inertial, Omega, LORAN, ILS, MLS, TRANSIT, GPS, air traffic control, and radar. *van Graas; F; Y.*

586 Electronic Navigation Systems II (3)

Prereq: 585. Continuation of 585 focused on current and future avionics systems and aircraft electronics. Design and signal processing in navigation receivers. *van Graas; W; Y.*

587 Electronic Navigation Systems III (3)

Prereq: 586. Continuation of 585 and 586 with emphasis on mathematical modeling of navigation and landing systems, fault tolerant avionics system design and architecture, night testing, and current developments. *van Graas; Sp; D.*

590 Special Topics (1-6)

Selected topics of current interest in electrical engineering. *Y.*

611 Circuit Analysis and Design (3)

Review of network analysis and matrix methods. Passivity and positive real functions. Introductory graph concepts and topological network analysis. Indefinite admittance matrix and active two-ports. Amplifier design and stability. High frequency circuits. Time domain versus frequency domain analysis. Nonlinear circuits. Introduction to numerical methods. *Mokari; F; Y.*

615 VLSI Systems Design (4)

Prereq: 515. Communication and concurrency in computers; processor arrays; hierarchically organized machines. Structured design; layout algorithms; MOS cell library. Design tools; rule checking; timing analysis; switch level simulation; placement; and routing. *Starzyk; Sp; A.*

616 Computer-Aided Analysis of Electronic Circuits (3)

Computer-aided simulation, numerical solution of nonlinear networks, tableau method, multistep numerical integration, sensitivity calculations, sparse matrix techniques, symbolic analysis, large change sensitivity, design by minimization. *Starzyk; F; Y.*

617 Fault Testable Design (4)

Prereq: 515 or perm. Basic concepts of reliability. Physical faults and testing. Test generation for combinational and sequential logic circuits, random testing, and signature analysis. Fault tolerance and circuit redundancy, self testing and fail-safe design, fault tolerant VLSI design, practical fault tolerant systems. Self testing, design for testability, built-in test, boundary scan testing, IEEE standards. 3 lec, 2 lab. *Starzyk; W; A.*

623 Nonlinear Analytical Techniques (3)

Dynamic systems-use and limitations of phase plane portraits in characterization of nonlinear components and nonlinear activation. Nonlinear phenomena and classification of singularities. Role of forcing function. Solutions found through methods of residues and variation of parameters. Selection process as means for decision making in problem solution; influence of selected criteria. Applications to networks, controlled systems, and optimal control systems. Problems and techniques of Poincaré, Liénard, and others. Systems with analytical solutions. Linearization techniques and error-tolerance determination. *Su; D.*

632 Integrated Optics I (3)

Theory of dielectric waveguides. The waveguide fabrication techniques, materials for waveguides. Waveguide measurements. Materials for active devices: LED's, lasers, and detectors. Fundamentals of optical coupling, input and output couplers, coupling between waveguides. *Lozykowski; Sp; Y.*

633 Integrated Optics II (3)

Prereq: 632. Modulators: electro-optic modulators, acousto-optic modulators, light sources: light emitting diodes, semiconductor lasers, (homo and heterostructures). Modulation of semiconductor lasers. Detectors for integrated optics application. Application of integrated optics and recent progress in integrated optics. *Lozykowski; F; Y.*

641 Advanced Antenna Theory (3)

Theory of dielectric waveguides. The waveguides' circular apertures, parabolic and corner reflectors, lenses, continuous sources, and antenna synthesis. Overview of integral equation and optical techniques in antenna theory. *Radcliff; Sp; D; 1989.*

645 Electromagnetics II (3)

Prereq: 543. Review of dyad, antisymmetric matrix $U_{\mathbf{x}}$, solutions of homogeneous and inhomogeneous equations in coordinate-free form. Wave propagation in anisotropic media. Wave propagation in uniaxial media. Radiation in isotropic medium. *Chen; W; A.*

646 Electromagnetics III (3)

Prereq: 645. Wave propagation in plasmas and ferrites. Wave propagation in moving media. Radiation in uniaxial medium. Radiation in moving medium. *Chen; Sp; D.*

647 Numerical Methods in Electromagnetics (3)

Prereq: 441 or 541. A review of basic integral equation of electromagnetics and an introduction to the method of moments including many practical solution examples. Software provided for many currently used general-purpose codes such as the Numerical Electromagnetic Code (NEC) and MININEC. *Radcliff; Sp; Y.*

648 High-Frequency Techniques in Antenna Theory (3)

Prereq: 441 or 541. Geometrical optics, radar cross sections, physical optics, and the Geometrical Theory of Diffraction (GTD). Diffraction theory for both the wedge and convex curved surfaces is presented, along with computer examples. Hybrid GTD-moment method techniques. *Radcliff; D.*

652 Design and Control of Manufacturing Systems (3)

Prereq: ME 560 or ISE 640 or perm. Benefits of CIM, integrated databases, IDEF-0, IDEF-1x, flexible manufacturing systems. System design: requirements, design and implementation. Control and software design for manufacturing systems. *Judd; W; A.*

653 Advanced Topics in the Control of Manufacturing Systems (3)

Prereq: EE 571 or perm. Markov chains, Markov process, and generalized semi-Markov processes. Application of Markov models to manufacturing systems. Infinitesimal, finite, and extended perturbation analysis. Petri nets, reachability graphs, incident matrix, boundedness, safe and live nets. Using Petri nets to control manufacturing systems. Aggregate production models. Hedging point strategies. *Judd; Sp; Y.*

661 Hardware Architecture of Computers I (3)

Prereq: CS 542. Processor level design methodologies. Computer arithmetic and number systems. Fixed- and floating-point ALU design; bit-sliced ALU organization; high performance multifunction array processors. Control organization and instruction sequencing; control implementation techniques and control memory optimization. Memory organization and virtual memories; address mapping; memory allocation and replacement policies; segments, pages and files; caches and associative memories. *Celenk; F; Y.*

662 Hardware Architecture of Computers II (3)

Prereq: 661. Continuation of 661. System organization; bus control and interfacing, bus arbitration, and timing. I/O subsystems; programmed I/O; DMA and interrupts; I/O coprocessors. Introduction to operating systems and systems management. *Celenk; W; Y.*

- 663 Architecture of Parallel Computers (3)**
Parallelism in uniprocessor systems. Parallel computer structures; pipeline computers, array processors, and multiprocessor systems. Multiplicity of instruction/data streams; SISD, SIMD, MISD, and MIMD computer organizations; parallelism versus pipelining. Virtual and cache memories; memory allocation; I/O subsystems. Principles of pipelining and vector processing. Pipeline computers and vectorization methods. Structures and algorithms for array processors. SIMD computers and performance enhancement. Multiprocessor computer architecture. Data flow computers and systolic arrays. *Celenk; Sp; Y.*
- 664 Digital Image Processing (3)**
Image fundamentals and human visual system; image radiometry, photometry, and colorimetry. Image sensing and formation; imaging geometry, perspective transformations, camera modeling and calibration, stereoscopic imaging. Neighbors, connectivity, and distance measures. Image sampling, quantization, and representation. Linear 2-D transformation techniques; DFT, FFT, Haar, Hotelling, Walsh, Hadamard, and Hough transformations. Image filtering and noise cleaning. Image enhancement and restoration. Image detection and registration. Template matching. Image coding and transmission. Image understanding systems. *Celenk; F; Y.*
- 665 Computer Vision (3)**
Computer vision system models. Image analysis and early processing; approaches to image segmentation (edge detection, region growing, histogramming, clustering, split and merge); thinning and contour following. Image feature extraction and texture analysis. Stereo vision and 3-D scene analysis. Geometrical and topological properties of binary images. Higher level processing; shape analysis and description, object representation, and recognition. Photometric stereo and shape from shading. Motion field and optical flow. Motion path planning and visual guidance. Visual inspection and quality control. *Celenk; W; Y.*
- 666 Pattern Recognition (3)**
Decision-theoretic pattern recognition and classification. Supervised learning and training algorithms, perceptions, reward and punishment, potential functions, linear discriminants. Bayesian learning, parametric and nonparametric classification, Bayes and Fisher classifiers. Unsupervised learning and clustering; maximum-distance, K-means, and Isodata algorithms, graph-theoretic approach. Feature selection through clustering transformation, entropy minimization, Karhunen-Loeve expansion. Principles of syntactic pattern recognition; formal language theory, recognition grammars, learning, and geometrical inference. *Celenk; Sp; Y.*
- 667 Introduction to Neural Networks (3)**
Prereq: 571. Fundamentals of artificial neural networks. Training algorithms. Software and hardware ANN products. Current ANN research trends. *Vassiliadis; F; Y.*
- 668 Knowledge-Based Systems in Engineering Design (3)**
Prereq: 464/564. Advanced topics in knowledge representation. Knowledge-based expert systems for design, planning, and classification. Expert systems integration with databases, neural networks, and fuzzy logic systems. Languages for symbolic computation. *Vassiliadis; Sp; Y.*
- 671 Digital Signal Processing (3)**
Prereq: 312 or equiv. Fundamentals of discrete-time systems. The Fourier transform. Sampling analog signals. The discrete Fourier series and the fast Fourier transform. Harmonic analysis and windowing. The z-transform. *Tague; F; Y.*
- 673 Advanced Topics in Signal Processing (3)**
Prereq: 671 or equiv. Digital filter design methodology. Numerical problems in signal processing. Discrete random signals. Introduction to sonar signal processing. Open problems and current research trends. *Tague; W; Y.*
- 674 Information Transmission (3)**
Prereq: 571. Definition of measure of information and study of its properties, efficient representation of discrete message sources, communication channels and their capacity, encoding and decoding of data for transmission over noisy channels and evaluation of bounds to probability of decoding errors, and algebraic theory of error correcting codes. *D.*
- 675 Introduction to Plasma Dynamics (3)**
Prereq: 543. Particle orbit theory, magneto-ionic theory, waves in cold plasmas, waves in warm plasmas. *H. Chen; D.*
- 676 Adaptive Signal Processing (3)**
Prereq: 671 or equiv. Signal processing in unknown environments and the need for adaptive systems. Optimum filters. The LMS algorithm. Fast least-squares filters. Applications in array processing and system identification. Current research trends. *Tague; Sp; A.*
- 677 Modern Spectrum Estimation (3)**
Prereq: 671 or equiv. The spectrum estimation problem. History and an overview of spectrum analysis methods. Review of estimation theory. The periodogram and Blackman-Tukey estimators. Parametric spectral estimators. Harmonic analysis in white noise. Open problems. *Tague; Sp; A.*
- 680 Medical Ultrasonics (3)**
Fundamental principles of medical ultrasonics. Wave propagation, interaction of ultrasound with tissues, beam formation, clinical instrumentation, bioeffects, and Doppler ultrasound. *Giesey; D.*
- 681 Research in Electrical Engineering (1-6)**
F, W, Sp, Su; Y.
- 690 Selected Topics (1-3)**
Selected topics of current interest in electrical engineering and computer science. *F, W, Sp; Y.*
- 694 Project Report (1-3 as recommended by department)**
- 695 Thesis (1-9)**
F, W, Sp, Su; Y.
- 698 Seminar (1-4)**
F, W, Sp, Su; Y.
- 712 Automata Theory (3)**
Development of capabilities and limitations of computers and other digital systems in terms of Turing machines, push-down automata, and other organizations; relations between grammar of a computer programming language and machine which accepts the language. *Klock; Sp; D.*
- 715 VLSI Design of Neural Networks (4)**
Prereq: 515 or perm. VLSI implementation of neural networks. Multilayered neural networks. Self organizing nets for pattern recognition. Integrated circuit synaptic connections. Active building blocks of the neural networks. Circuits for arithmetic functions. Analog multipliers and convolution circuits. Associative memory implementation. Optical motion sensor. Electronic neural processors. 3 lec, 2 lab. *Starzyk; Sp; D; 1997.*
- 716 Linear Network Theory I (3)**
Prereq: 611 or equiv. High frequency circuit analysis and design using scattering parameters. Broadband limitations on network performance. Signal flow graphs and feedback amplifier theory, stability of feedback amplifiers. Introduction to broadband matching. CAD techniques. *Mokari; W; Y.*
- 717 Linear Network Theory II (3)**
Prereq: 716 or equiv. Review of generalized s-parameters. Broad-band matching and design of equalizers. Microwave amplifier design and bias considerations. Low noise, broadband, and large signal design methods. Broadband negative resistance amplifiers. CAD techniques. *Mokari; Sp; Y.*
- 718 Network Topology (3)**
Fundamental concepts in linear graph theory, matrix representation of linear graphs, properties of incidence, circuit and cut-set matrices, graphs and vector spaces, derivation of topological formulae for linear lumped networks, application to analysis, and synthesis of communication nets. *Starzyk; W; D.*
- 721 Multiport Synthesis (3)**
Prereq: 511, 512. Positive-real and bounded-real matrices. Synthesis of lossless n-ports. Synthesis of n-ports with prescribed immittance matrix. Scattering synthesis. *Starzyk; D.*
- 755 Power System Reliability (3)**
Prereq: 557. Probability theory; reliability concepts; evaluation of reliability of generating, transmission, and composite systems, interconnected systems and DC transmission systems. *Manhire; D.*
- 756 Computer Methods in Power System Analysis (3)**
Prereq: 755. Review of matrix algebra. Incidence and network matrices. Algorithms for formulation of network matrices. Short circuit, load flow, and stability studies. *Manhire; W; D.*
- 757 Probabilistic Simulation of Electric Power Systems (3)**
Prereq: 756. Overview of long range generation system expansion planning problem. Load duration based simulation and cumulant method of production costing. Chronological simulation techniques. *Manhire; Sp; D.*
- 771 Fundamentals of Statistical Communication Theory (3)**
Prereq: 571. Analysis of nondeterministic signals in linear systems with specific applications to communication systems. Topics include waveform estimation, matched filters, optimum systems, smoothing and prediction, Nth law detectors, digital communication systems, sampling quantizers, encoding, channel error, detection, etc. *Essman; F; D.*
- 772 Modulations Systems (3)**
Prereq: 771. Performance of familiar communication systems within context of statistical concepts and random noise representations, correlation and spectra analysis and narrow band noise, linear modulation, synchronous demodulation, suppressed carrier techniques, angle modulation, noise in FM, threshold effects in FM, frequency division, multiplexing, correlation detection, coherent binary signaling, coherent phase-reversal keying, differential phase-shift keying, optimum detection, and decision theory. Individual problems associated with state of art techniques. *Essman; Sp; D.*

773 Digital Detection Systems (3)

Prereq: 771. Detection of digital signals using decision theory concepts, conventional and unconventional communication systems, channel characteristics, Hilbert transforms, signal space representations, optimum detection of known signals, detection of signals with finite number of unknown parameters, estimation, estimator-correlator receivers, and suboptimum receivers. Techniques and problems from current literature. *Essman; W; D.*

776 Advanced Plasma Dynamics I (3)

Prereq: 675. Distribution function and Boltzmann equation, transport equation, BV equation, and relaxation model. Landau damping, kinetic treatment of waves in plasmas. *H. Chen; D.*

777 Advanced Plasma Dynamics II (3)

Prereq: 675, 776. Continuation of 776. Boltzmann collision term, Chapman-Enskog expansion. BBKY equations for plasma confinement and stability. *H. Chen; D.*

778 Boundary Value Problems I (3)

Partial differential equations derived from engineering problems. Topics include linear spaces and operators, eigenvalue, and eigenfunctions. Sturm-Liouville systems and Orthogonal functions, separation of variables in special coordinate systems, generalized Fourier series, and integrals. *H. Chen; W; D.*

779 Boundary Value Problems II

Techniques for solving boundary value problems, Green's functions and generalized functions, special methods making use of symmetries, images, inversion, and conformal mapping; introduction to integral equation method. *H. Chen; D.*

790 Linear Geometric Control Theory (3)

Prereq: 796 and MATH 511. Topics include a geometric treatment of controllability and observability in terms of invariant subspaces and the concepts of controlled invariant and controllability subspaces with application to disturbance decoupling and noninteracting control problems. *Lawrence; D.*

791 Advanced Digital Control Systems (3)

Prereq: 527 or equiv. Analysis of the effects of signal sampling. Modeling A/D and D/A operations. Application of z-transform to digital control systems, stability techniques. Design of controllers for sampled data systems. *Mitchell, Irwin; W; Y.*

792 Advanced Topics in Automatic Control (3)

Prereq: 526 and 527 or equiv. Basic control system philosophy. Development of control system models. Model reduction. Generalized use of the Nyquist Criterion for determining performance. Model development from test data. Automated and manual frequency response design techniques. *Mitchell; Sp; A.*

793 Nonlinear Control Theory (3)

Prereq: 623 and 790. Introduction to analysis and design of nonlinear control systems using differential-geometric approach. Topics include distributions, nonlinear coordinate transformations, and Frobenius' Theorem with application to nonlinear controllability and observability, feedback linearization, disturbance decoupling, and noninteracting control. *Lawrence; D.*

794 Adaptive, Learning, and Self-Organizing Systems (3)

Fundamental concepts underlying adaptive, learning, and self-organizing systems. System identification, use of gradient methods, peak-holding systems, application of adaptive principle to autopilot and communication systems. Model reference adaptive control, dual control. Self-tuning control, pattern recognition, discriminant functions, training in classifiers, statistical classification, feature selection and ordering, nonparametric procedure, Bayesian learning, stochastic approximation. *Raju; Sp; A.*

795 Random Signal Analysis and Optimal Estimation (3)

Prereq: 527 and 571. Characterization of random processes, identification of signals, parameter and random variable estimation, stochastic optimal control problem, dynamics of stochastic systems, stochastic finite-state machines, stochastic discrete-time systems, stochastic continuous-time systems, Markov systems. *Raju; D.*

796 Advanced State Variable Methods in Control (4)

Prereq: 527 and 528. Rigorous treatment of controllability and observability for LTI systems; standard state variable forms; duality; minimal realizations; grammians; eigenvalue placement with full state feedback; full and reduced order observers; separation principle; robustness; discrete-time systems; multivariable systems. *Irwin; W; Y.*

797 Linear Optimal Control (4)

Prereq: 796. Performance functionals discrete-time systems; principle of optimality; Hamilton-Jacobi equation; finite-time solutions; steady-state solutions; asymptotic properties; design. *Irwin; F; Y.*

798 Numerical Methods in Control (4)

Prereq: 796. Basic time domain and frequency domain calculations specialized decompositions; specialized matrix equations and their solutions; calculation of minimal realizations; state space methods of transfer function matrix analysis. *Irwin; Sp; Y.*

819 Theory of Graphs I (3)

Prereq: MATH 510. Fundamental topics of graph theory, e.g., connectedness, path problems, Eulerian graphs, matroids, matching theorems, Hamiltonian directed graphs, acyclic graphs, and partial order. Depth-first search, reducibility of program graph, binary search trees, flows in transport network. *Starzyk; D.*

844 Advanced Microwave Networks (3)

Analytical study of waveguide junctions. Impedance, admittance, and scattering matrices formulations for waveguide junctions, eigenvalue problems, symmetrical devices and directional coupler, group theory and its applications to waveguide junctions. *H. Chen; D.*

845 Computer Solutions of Electromagnetic Problems (3)

General techniques of solutions suitable for digital computation and their application to electromagnetic field problems of practical interest, matrix formulation of field problems, wire antennas and scatters, generalized network parameters, Galerkins method, Rayleigh-Ritz variational method. *H. Chen; D.*

846 Special Topics in Engineering Mathematics (3)

Concentrated study of advanced mathematical techniques in analytical solution of engineering problems. Selected topics from recent and/or classical literature of applied mathematics, as integral equations, variational and perturbation methods, applications of theory of a complex variable, theory of distributions. Introduction to functional analysis. *H. Chen; D.*

881 Doctoral Research (1-9)

F; W, Sp, Su; Y.

890 Special Topics in Electrical Engineering (3)

Current developments in electrical engineering. Selected topics offered yearly. May be taken for repetitive and variable credit. *F; W, Sp, Su; Y.*

895 Dissertation (1-9)

F; W, Sp, Su; Y.

Industrial and Manufacturing Systems Engineering

The Department of Industrial and Manufacturing Systems Engineering (IMSE) offers three degree options leading to a Master of Science degree: manufacturing systems, manufacturing information systems, and quality systems. Other specialized study concentrations are available in areas of faculty interest, including engineering management, computer applications, artificial intelligence, systems simulation, stochastic systems, expert systems, process planning, and engineering statistics.

The focus of graduate educational and research activities is on structuring the decision process, system analysis, and the design of complex systems that integrate technical, human, and economic resources within a variety of constraints and environments.

The option emphasizing manufacturing systems has been developed to meet the needs of engineers and other technical graduates who plan to perform industrial and systems engineering and management functions in manufacturing organizations. The option is designed to build upon mathematical and analytical expertise gained from a technical education and professional experience. It is heavily directed toward using the computer to solve production problems and includes courses from other departments to provide valuable interdisciplinary experiences.

Information systems are revolutionizing the way in which manufacturing is conducted and managed. The manufacturing information systems option prepares students to develop and implement large complex information systems in any manufacturing or service organization. Students will learn both the fundamentals of database theory and manufacturing applications. The focus of this area is computer integrated manufacturing through information integration.

The quality systems option enables students to work in manufacturing as well as service systems on projects such as business process reengineering, process control and variation reduction, simultaneous engineering design, quality system creation and auditing, robust design, and tolerancing systems. This option builds upon statistical and engineering expertise through a set of core courses that provide the foundation for advanced work in quality systems.

The department also participates in the integrated engineering Ph.D. program, emphasizing intelligent systems engineering.

Descriptions outlining suggested core courses and electives for the options are available upon request. You are expected to use the core courses as a guide, with the specific program designed jointly by you and your advisor. A plan of study must be submitted to the IMSE Graduate Committee for approval before the end of the second quarter of study.

Each of these options and other concentration areas may be taken with or without a thesis. The thesis option requires a minimum of 45 quarter hours including 6 hours of thesis (ISE 695). The nonthesis option requires a minimum of 51 credit hours including a three-credit-hour scholarly project (ISE 694), a formal written report, a nonthesis committee, and formal defense. All full-time graduate students are expected to register for three successive quarters of ISE 630 Seminar beginning with their first quarter in residence. Up to six

hours of independent study may be taken for degree credit.

A maximum of 12 credit hours of elective graduate level courses may be taken outside the department or the university, provided they are included in an approved plan of study. You also are required to complete at least one-third of your total required hours in graduate-only courses, while the other two-thirds may be in graduate courses that are cross-listed with undergraduate electives.

The department welcomes applications from engineering students and qualified students with a bachelor's degree in physical sciences, including mathematics and computer science. Each candidate is evaluated on previous academic record, work experience, and career goals. Graduate Record Examination scores are required except in extenuating circumstances. If you enter without an adequate background, you may be required to take additional courses, including calculus and differential equations, probability and statistics, computer programming, production control, digital simulation, plant design, work design, and system design, depending on your degree of preparation.

Graduate fellowships, graduate and research associateships, and fee waivers are available for students with a high grade-point average. International students desiring a graduate associateship must pass a test of clarity of speech (SPEAK test).

Equipment in the IMSE department includes computer-controlled devices to simulate automated industrial systems, robots, robot vision system, advanced microcomputer and computer systems, peripheral devices, software development lab, an instrumented research car with a TV driver-eye movement recording system, an ASL Model 1998 computer-controlled eye-view monitor system, photometric measurement systems, a coordinate measuring machine, work measurement and work design equipment, and Sun and Silicon Graphics computer workstations.

Industrial and Manufacturing Systems Engineering Courses (ISE)

500 Fundamentals of Industrial Engineering (6)
Review of fundamental industrial engineering concepts to provide students with non-IMSE undergraduate degrees the foundation for graduate courses. Covers material in ISE 532, 540A, 545 and 583. (Not for degree credit for M.S., IMSE.) F.

501 Manufacturing Systems Design (4)
Prereq: 330, 333, 440A. Introduction to current state-of-the-art and advanced manufacturing systems design concepts in a CIM environment and in a "global economic and marketing system." Uses the "enterprise approach" in a "top down" system design approach to manufacturing system design.

502 Manufacturing Systems (4)
Applications of industrial and systems engineering techniques, principles, practices, and methodologies as they relate to the operation, analysis, management, planning, and design of manufacturing systems. F.

503 Material Handling Systems Engineering (4)
Provides an understanding of material handling engineering from a system design and application engineering point of view. Instruction in the engineering principles, design criteria operating parameters, performance requirements, equipment resources, and application engineering practices involved in the planning, design, and operation of materials handling systems for manufacturing, physical distribution, and government operations. A materials handling system design project is a required part of the course.

504 Applied Engineering Statistics (3)
Prereq: calculus. Introduction to efficient methods for data collection and analysis. Application of basic statistical tests, techniques, and experimental design to engineering and science data problem areas. 3 lec. (Not for degree credit for M.S., IMSE.) F, W; Y.

505 Engineering Statistics I (3)
Prereq: calculus. Introduction to probability, concept of random variables, discrete and continuous probability distribution, and expectation. (Not for degree credit for M.S., IMSE.) F, W; Y.

506 Engineering Statistics II (3)
Prereq: 505. Functions of random variables, sampling distributions, estimation theory, hypothesis testing, and statistical prediction. (Not for degree credit for M.S., IMSE.) F, Sp; Y.

507 Intro to Designed Experiments (3)
Prereq: course in probability and statistics. Design and analysis of engineering experiments from linear statistical model point of view. Blocking designs, full and fractional factorial designs, analysis of variance, and introduction to response surface methodology. 3 lec. F; Y.

509 Cost Engineering (3)
Product cost estimating, product value engineering, and manufacturing performance evaluation in state-of-the-art manufacturing systems. Examines the application of industrial engineering techniques, work measurement, cost accounting, and computers to manufacturing cost measurement and process design.

510 Decision Theory I (3)
Prereq: perm. Introduction to decision theory and its applications. Modern utility theory and its application to decision making under risk is emphasized. Examples selected from inventory, bidding purchasing, maintenance and investment policies.

514 Robotics in Industrial Systems Engineering (4)

Provides an opportunity to learn and understand the application of industrial robots and their role in industrial and systems engineering. Presents the relationships among product design, process control, robots, design of experiments, and flexible automation. Emphasizes hands-on laboratory exercises.

515 Introduction to Systems Engineering (3)

Introduction to systems engineering concepts. Systems structure, open-loop and closed-loop systems, positive and negative feedback. Applications to production and inventory systems, population, and physical systems. Design project required. 3 lec. *W*.

517 Analytical Foundations of Industrial and Systems Engineering (3)

Special analytical techniques introduced for solution of complex industrial and systems engineering problems. Calculus of finite differences, Fourier analysis, and use of transform techniques in linear system analysis; probability implications of transforms, and probability modeling. *F; Y*.

526 Microprocessor Applications in Manufacturing (3)

Comparison and contrast of micro-, mini-, and mainframe computers; comparison of RISC and CISC microprocessors; numbering and arithmetic systems; microprocessor and microcomputer hardware organizations; assembly, procedural, and object-oriented high level languages; basic input/output and interfacing concepts; industrial data acquisition; process control and computer-integrated manufacturing concepts; graphics and industrial applications data processing; and database management for office use and business application. *W; Y*.

527 Digital Computer Systems I (3)

Prereq: C programming. Overview of manufacturing tools, techniques, and applications. Database architecture; internal storage methods; structural query language (SQL); normalization; manufacturing entities and relations. *F*.

528 Digital Computer Systems II (3)

Continuation of 527. See 527 for description. *W*.

530 Engineering Economy (3)

Economic analysis of engineering projects. Intended to provide both basic theory and practical experience in comparing alternatives for capital expenditures, alternatives for providing needed production or services, and alternatives for income generation. 3 lec. (Not for degree credit for M.S., IMSE.) *F; W, Sp; Y*.

531 Advanced Engineering Economy (3)

Prereq: perm. Risk explicitly treated by consideration of uncertainties of cost estimates, forecasting and other economic variables. Construction and use of mathematical models for analysis of engineering alternative. 3 lec..

532 Inventory and Manufacturing Control I (3)

Design of inventory and manufacturing control systems. Forecasting, continuous and periodic review inventory systems. Relationship between production schedules and inventory. Production scheduling systems. Sequencing models, dispatching rules. 3 lec. (Not for degree credit for M.S., IMSE.) *F; Y*.

533 Industrial Computer Simulation (3)

Simulation of industrial problems using digital computers. Stresses user-oriented programs. Applications include use of library routines and simulation languages such as SIMAN and GPSS. Projects involving design of simulation programs required. (Not for degree credit for M.S., IMSE.) *W; Y*.

534 Network Analysis and Scheduling (3)

Engineering project planning using such techniques as PERT and critical path method; shortest route; maximal flow; minimal spanning tree; flow graphs; GERT; and other network models. 3 lec.

535 Quality Control and Reliability (3)

Application of statistics to control of quality and reliability in products and services. Design of acceptance sampling and process control systems, including attention to inspection and test methods. Design and implementation of quality assurance programs, including nonstatistical dimension of quality systems. 3 lec. *Sp; Y*.

536 Project Management (3)

Development and utilization of network techniques to schedule activities, develop financial budgets, allocate resources, and control progress and costs of practical projects. Students introduced to use of available computer programs that generate project schedules. 3 lec. *F*.

539 Information Systems Engineering (3)

Prereq: C programming. Design of information systems including databases, displays, and the automatic storage, retrieval, and transmission of data. *Sp*.

540A Industrial Plant Design I (2)

Prereq: 333, 445A. Introduction to two-quarter program in which students design a manufacturing facility. First quarter topics include product and process analysis, plant size, layout and location, building design, estimation of production time for each operation, production scheduling, and inventory control. (Not for degree credit for M.S., IMSE.) *W; Y*.

540B Industrial Plant Design II (3)

Prereq: 540A. Continuation of 540A. (Not for degree credit for M.S., IMSE.) *Sp; Y*.

541 Introduction to Operations Research (4)

Basic methodology of operations research. Application and mathematical structure of linear, integrated, and dynamic programming; queuing theory; and other modeling techniques. (Not for degree credit for M.S., IMSE.) *W, Sp; Y*.

542 Inventory and Manufacturing Control II (3)

Branch and bound scheduling algorithms, horizon planning, control of integrated production, inventory and workforce systems, and linear decision rules. 3 lec.

544 Applications of Mathematical Programming (3)

Linear programming theory and practice. Topics include simplex method, two-phase method, duality theory, and sensitivity analysis. 3 lec. *Sp; D*.

545 Systems Design (3)

Individual or small-group system design project. (Not for degree credit for M.S., IMSE.) *W; Y*.

546 Design of Maintenance Systems (3)

Provides a working knowledge of maintenance systems and the ability to design a maintenance system.

561 Operations Research (3)

Prereq: 517. Queuing theory and its applications. Single and multiple channels with various system parameters and queue disciplines. Both steady state and transient conditions investigated. Real-world data collection required. 3 lec.

562 Operations Research II (3)

Prereq: course in probability. Theory and application of dynamic programming to discrete and continuous multistage processors. Principle of optimality; forward and backward recursion; state and decision inversion; converging and diverging branch systems; feed-forward and feedback loops; computational algorithms and programs; stochastic dynamic programming. 3 lec. *D*.

563 Operations Research III (3)

Prereq: 544. Theory and application of integer programming, convex programming, geometric programming, gradient search methods. *D*.

564 Reliability in Design (3)

Application of reliability theory to equipment or facilities design. Design of testing systems and procedures for effective reliability measurement and prediction. Analysis of overall system reliability as function of component reliability. 3 lec. *D*.

565 Information Systems Design (3)

Design and control of information flow in organizations. Information storage and retrieval by data processing equipment. Students practice design of information systems in laboratory. 3 lec.

583 Work Design (3)

Prereq: 505. Design of work systems and measurement of work. Topics include job methods, operation analysis, charting techniques and schematic models, stop-watch time study, work sampling, predetermined time systems, standard data, incentive wage systems, and learning curves. 3 lec, 2 lab. (Not for degree credit for M.S., IMSE.) *F; Y*.

589 Special Investigations (1-6)

F, W, Sp, Su; Y.

590 Advanced Problems in Computer Application (1-6)

Special investigations of advanced systems and industrial engineering problems involving use of digital or analog computers. *F, W, Sp, Su; Y*.

630 Seminar in Industrial and Systems Engineering (1)

Current topics and new developments in industrial and systems engineering. Required of all IMSE graduate students each quarter until three credit hours are earned. *F, W, Sp; Y*.

632 Seminar on the Control of Inventory and Manufacturing Systems (3)

Advanced inventory control, scheduling, and forecasting techniques. Critical review of current literature on inventory and manufacturing control including advanced production scheduling and forecasting techniques. Box-Jenkins Methodology. 3 lec.

640 Facilities Layout and Location (3)

Prereq: 440A. Construction and improvement algorithms for discrete layout problems. Math programming formulations for continuous layout problems; planar and network location models. Design of linear, nonlinear, quadratic, and network programming applications. Analysis of trade-offs between model realism and solvability. Design project required.

642 Warehouse and Distribution Systems Design (4)

Quantitative and operational approach to the design of the total receiving, storage, and retrieval system including packaging, palletizing, storage, material handling, order picking, shipping, facility sizing and layout, information systems, and operating policy.

681 Research (1-18)

F, W, Sp, Su; Y.

689 Advanced Topics in Industrial and Systems Engineering (1-6)

Readings and lectures. *D*.

694 Nonthesis Independent Research (3)

F, W, Sp, Su; Y.

695 Thesis (1-12)

F, W, Sp, Su; Y.

708 Quality Systems (4)

Prereq: applied stats. Modern quality systems concepts of Total Quality Control (TQC), Total Quality Management (TQM), and Quality Function Deployment (QFD), etc., with an emphasis on "quality by design." Includes Taguchi Methods for robust product and process design and western experimental design methodology.

709 Intelligent Engineering Systems (4)

In-depth study of techniques available in computer technology and human-machine systems to aid in the analysis of decision-making situations using expert systems technology.

732 Seminar in the Control of Inventory and Manufacturing Systems (3)

Prereq: 532 or equiv. Critical review of current literature on inventory manufacturing control. Presentation of selected papers, with class participation in constructive critique. Related research within department included. Representatives of industry invited to present their control systems for critique.

733 Advanced Systems Simulation (3)

Advanced discrete event simulation modeling. Modeling, design, statistical analysis, and optimization of large scale systems. Programming and comparison of simulators, simulation languages, and object-oriented simulation tools.

737 Computer Systems Seminar (1-3)

Prereq: 528. Analytic examination of selected topics in computer system planning, design, and evaluation. Presentation of selected papers or student research, with class participation in constructive discussion. Representatives from government, industry, or other educational institutions are invited to lead discussions on topics of current interest.

761 Operations Research I (3)

Prereq: 541. Advanced queuing theory and its applications. Single and multiple channels with various system parameters and queue disciplines. Both steady state and transient conditions are investigated.

762 Operations Research II (3)

Advanced topics in dynamic programming, network flow, theory of games, and Markov processes.

763 Operations Research III (3)

Advanced topics in integer programming, quadratic programming, convex programming, and other nonlinear programming subjects. Applications of Kuhn-Tucker conditions.

772 Optimization of Complex Engineering Systems I (3)

Advanced techniques for design and analysis of large-scale engineering systems. Functional analyses, information systems, large-scale programming, and network algorithms.

773 Optimization of Complex Engineering Systems II (3)

Prereq: 772. Continuation of 772.

790 Special Topics in Industrial and Systems Engineering (1-6)

Course content and structure (lecture, lab, or combination) will be determined at the discretion of the instructor. Examples include artificial neural networks in manufacturing, artificial intelligence in manufacturing system design, advanced manufacturing database architecture, and evolutionary computation in job shop scheduling.

891 Special Investigations in Industrial and Systems Engineering (1-6)

Course content is determined at the discretion of the instructor with an emphasis on individual study.

Integrated Engineering

An interdisciplinary Ph.D. is offered with three specialty areas: materials processing; geotechnical and environmental; and intelligent systems.

Admission to the program is restricted to students who wish to study in one of the three specialties. An M.S. in engineering or a related field is required for admission. Further admissions information is available from the associate dean for research and graduate studies of the Russ College of Engineering and Technology.

A plan of study is developed on an individual basis by your advisor and a special committee. All plans of study must include a set of designated core courses (a list is available in the dean's office) and an appropriate research focus. The plan must include at least 15 credit hours from each of two departments in the Russ College of Engineering and Technology or 12 credit hours from each of three departments. A minimum of 23 hours of coursework must be at the 600 level or above, including 10 hours at the 700/800 level. A minimum of 90 credit hours above the M.S. (including 45 credit hours for the dissertation) is required. The plan must be approved by your dissertation advisory committee and the integrated engineering steering committee.

You must satisfactorily complete a qualifying examination near the beginning of the program and a comprehensive examination after completing the coursework. The comprehensive examination measures knowledge and integration of the subjects necessary to successfully complete the dissertation. The examination consists of a general exam, which tests knowledge of the core, and an area exam, which tests knowledge in your chosen specialty. To successfully complete the general exam, you must achieve a passing score in four of the six core course areas: finite

elements, computer-aided design, expert systems, materials, system theory, and quality systems. Following completion of the general exam, the area exam demonstrates knowledge in one of the three specialty areas (geotechnical and environmental, materials processing, or intelligent systems).

Integrated Engineering Courses (IE)

881 Doctoral Research (1-15)

895 Doctoral Dissertation (1-15)

Mechanical Engineering

Graduate work leading to a Master of Science in mechanical engineering can be formulated with specialization in mechanical systems, CAD/CAM, manufacturing, biomedical, or thermofluid sciences. Areas of interest include computer-aided design and manufacturing, microcomputer control and data acquisition systems, automated manufacturing systems, finite element analysis, materials processing, robotics, combustion, energy engineering and management, thermal stresses, air pollution, thermofluid systems, ceramic powder processing, heat transfer, fluid mechanics, biomechanics, biomolecular simulation, biomaterials, and mechanical design. A technology management option is also offered.

A college-wide interdisciplinary Ph.D. is offered in the areas of materials processing, intelligent systems, and geotechnical and environmental studies. These areas include such topics as computer integrated manufacturing (CIM), materials synthesis, heat and mass transfer in manufacturing processes, solidification processing, extrusion, rolling, computer aided design/manufacturing (CAD/CAM), robotics, mechanics, control systems, and environmental pollution. For additional description of the Ph.D. program, see the Integrated Engineering listing.

The basic requirement for admission is a B.S. in mechanical engineering. Applicants holding degrees in other fields of engineering or from non-

accredited engineering colleges may be required to make up deficiencies prescribed by the department. The Graduate Record Examination is required except in extenuating circumstances. Special programs of study leading to the M.S. in mechanical engineering are available for students who have earned a B.S. in science with a major in physics or mathematics. These programs are designed to make up for deficiencies and prepare you for graduate study in one to three quarters.

Both thesis and nonthesis options are available for the M.S. program. The minimum requirements for the thesis program are 33 credits of coursework, including 20 credits in the area of specialization, and 12 credits of thesis work. Students must register for three quarters of graduate seminar. For the nonthesis program, the minimum requirements are 42 credits of coursework, including 27 credits in the area of specialization and 6 credits of research project. The program of study must include fundamental courses in areas of design and thermofluids. ME 596, ME 597, and ME 636 are required core courses.

Financial assistance is available in the form of graduate fellowships, research associateships, and graduate associateships.

The department recommends that you enter the program in the fall quarter. Contact the department for details on graduate programs.

International students whose proficiency in English is inadequate are encouraged to enroll in the Ohio Program of Intensive English (OPIE) at Ohio University in the summer quarter preceding their first quarter of study in the department.

Mechanical Engineering Courses (ME)

503 Machine Design I (4)
Prereq: 313, CHE 331. Applications of mechanics, mechanisms, materials, and mechanical processes to the design and selection of machine members and units of power transmission. *Halliday, Dehghani; Sp; D.*

504 Machine Design II (4)
Prereq: 403. Morphology and anatomy of engineering design. Inventiveness, engineering analysis, optimization, statistics, and decision making. Engineering design project. Graduate credit for non-mechanical engineering majors only. *W.*

506 Analysis and Design of Mechanisms (4)
Analysis and synthesis of planar and three-dimensional mechanisms using classical and modern analytical approaches. Structural synthesis of mechanisms and dimensional synthesis of linkages for function generation, path generation, and rigid-body guidance. Applications of matrix methods, optimization techniques, and computer solutions. *Williams; D.*

507 Fundamentals of Nuclear Engineering (4)
Nuclear engineering, including nuclear reactions, radiation detection and measurement, reactor control, radiation shielding, effects of radiation on materials, uses of radioactive materials. *Lawrence; D.*

508 Nonlinear Vibrations (3)
Qualitative and numerical study of mathematics and physics of nonlinear systems. Formulations of nonlinear engineering problems, solutions techniques, and stability analysis. *Halliday, Pasic; Sp; D.*

509 Advanced Machine Dynamics (3)
Theoretical analysis and applications of dynamical aspects and problems in machines and their components. *Adams; D.*

510 Advanced Vibrations Analysis (4)
Prereq: 592. Vibrations of multi-degree-of-freedom, lumped, parameter systems and of continuous systems such as bars, beams, and plates; numerical methods of solution; use of Rayleigh-Ritz and Galerkin procedures. *Halliday, Pasic; F; D.*

512 Heat Transfer (4)
Prereq: 321, CE 340. Basic concepts of conduction in one or more dimensions, steady and transient modes. Radiation, dimensional analysis, fundamentals of convection in various modes, heat exchanger design. 4 lec. Graduate credit for non-mechanical engineering majors only. *Sp; Y.*

513 Conduction, Convection and Radiation (4)
Advanced analytical treatment of conduction, convection, and radiation. Boundary value problems, orthogonal expansions, moving heat sources, multidimensional problems with varying boundary conditions, finite difference analysis, conformal transformations, radiation network matrix analysis, diffuse-specular exchange, Monte Carlo techniques, etc. *Alam, Lawrence; D.*

514 Convection Heat Transfer (4)
Prereq: 546. Convection heat transfer. Hydrodynamic and thermal boundary layers in forced and free convection. 3 lec. *Sp.*

515 Thermal Stress Analysis (4)
Prereq: CE 528. Thermal stresses developed in machine and structural components. Procedures for solving stress problems associated with elevated temperatures in such components as tubes, rods, and plates as encountered in nuclear reactors, engines, and airplane and missile structures. *Dehghani; D.*

516 Combustion (3)
Kinetic theory and properties of gases, chemical reactions in gases, diffusion flames, detonation, combustion of atomized sprays, combustion diagnostic techniques, combustion and air pollution. *Alam, Bayless; D.*

517 Design of Thermal Systems (4)
Design of systems in which thermodynamics and heat and mass transfer are major considerations. Emphasis on total design approach incorporating economic considerations and optimization techniques. Typical systems include power, propulsion, environmental, cryogenic. *Lawrence; F; Y.*

518 Mechanical Engineering Experimentation (1)
Instruction in experimental procedure and experience in designing and executing laboratory experiments. Planning and execution of experiments to acquire answers to assigned problems. Variety of areas covered including control systems, energy conversion, fluid flow, heat transfer, motion measurements, stress-strain. Instructional guidance provided by entire mechanical engineering staff. Provides familiarity with variety of instrumentation and procedures. Three-quarter sequence with experimental subjects phased with prerequisites. *F; Y.*

519 Mechanical Engineering Experimentation (1)
Continuation of 518. See 518 for description. *W; Y.*

520 Mechanical Engineering Experimentation (1)
Continuation of 519. See 518 for description. *Sp; Y.*

522 Stirling Cycle Machine Analysis (3)
Prereq: 328, ET 240, CE 340, and concurrent with ME 412. Analysis and simulation of Stirling cycle engines, in which the single phase working gas operates in a closed thermal power cycle. Development and use of computer simulation techniques to model the nonsteady flow conditions including thermodynamics, heat transfer, and fluid flow friction effects. *Urieli; W; Y.*

524 Gas Dynamics I (3)
Prereq: CE 340. One- and two-dimensional gas dynamics, isentropic flow, flow with heat transfer, friction, shocks, generalized one-dimensional flow. Applications to propulsion systems. 3 lec. *D.*

525 Vehicle Propulsion Systems (4)
Prereq: 524. Applications of basic engineering disciplines to design and analysis of ground vehicle propulsion systems. Emphasis on new concepts. Extensive use of computer modeling. Term report required. *D.*

526 Stirling Machine Design Colloquium (2)
Unstructured lecture, roundtable discussion, project and model presentation, laboratory. Topics include various practical problems and issues related to the design, development, and testing of Stirling cycle machines and components. Participation of all students is required in terms of podium presentations, projects, and models, as well as a final report. *Beale; D.*

527 Power Station Engineering (3)
Prereq: perm. Application of the principles of thermodynamics, fluid mechanics, and heat transfer to the analysis of combustion, pulverized coal combustion, control of gaseous emissions, nuclear fission, steam generators, economizers, preheaters, superheaters, turbines and turbomachinery, stacks, forced and induced draft, feed pumps, and heat balances. Optimization of power plant design and operation. *Bayless; Y.*

529 Mechanics and Control of Robotic Manipulators (4)
Prereq: perm. Classification and applications for mechanical manipulator systems. Manipulator motion description, forward kinematics transformations, and solution of inverse kinematics equations. Velocity kinematics and manipulator dynamics equations. Trajectory generation and control schemes including sensory feedback. Laboratory exercises to augment lecture material. Co-listed with EE 429/529. *Williams; Sp.*

531 Atmosphere Pollution Control (4)

Prereq: perm. Sources of air pollution from major industries, internal combustion engines, and other sources. Techniques available for measuring particulate and gaseous pollutants in atmosphere and at their sources. Techniques available for control and future possibilities for control of air pollution. *Bayless; Y.*

532 Analysis and Simulation of Transport Processes (4)

Use of CFD software to study conduction, convection, and radiation. Analyze governing equations by simulation and visualization. Fundamentals of CFD programming. *Staff.*

534 Fundamentals of Aerosol Behavior (3)

Prereq: 321, 412. Aerosol characterization transport properties, convective and inertial deposition, light scattering and visibility, experimental methods, coagulation, gas to particle conversion, general dynamic equation for aerosols. *Alam, Bayless; D.*

535 Energy Engineering and Management (3)

Basic concepts and objectives of energy management, energy audit, engineering evaluation of several energy systems, availability analysis, second law efficiency, economic evaluation, and application of these principles to case studies. *D.*

540 Direct Energy Conversion (4)

Coupled flows, irreversible thermodynamics, behavior of ionized gases, general principles of unconventional thermodynamic cycles; thermoelectricity, thermionics MHD, fuel cells. *Lawrence; D.*

545 Advanced Numerical Methods (4)

Prereq: 597 or equiv. Numerical methods for solution of ordinary and partial differential equations, stability considerations and error estimates, application to variety of engineering problems, numerical method of lines and integration procedures for stiff ODE systems. *W; Y.*

546 Potential Flow Theory (3)

Inviscid flow theory. General equations of fluid mechanics, study of potential flows. 3 lec. *Graham; F; Y.*

547 Viscous Flow Theory (3)

Mechanics of fluid resistance, laminar and turbulent flow, applications to external boundary layer flow and to flow in ducts. 3 lec. *Graham; W; Y.*

550 Computer-Aided Design I (4)

Applications of contemporary computer modeling techniques to solve complex problems in stress, heat transfer, dynamic systems, and fluid flow. Emphasis given to applications of these techniques to solve specific problems in mechanical engineering design. *Gunasekera; W; Y.*

551 Computer-Aided Design II (4)

Prereq: 550. Existing CAD techniques, graphics input and output of data, advanced CAD system, requirements for a general CAD system, graphical and utility functions, filing facilities, editors, software designs and organization, solid modeling, 3-D display, facilities, application of CAD techniques for finite element data preparation and display, automated mesh generation. *Gunasekera; D.*

552 Mathematical Methods in Computer Graphics (4)

Introduction to computer graphics technology, points and lines in 2-D, transformations and projects in 2-D and 3-D, scaling, shearing, rotation, reflections, translations, perspective geometry, stereographic projection, parametric curves, conic sections, interpolations, space curves, cubic splines, Bezier curves, B-splines, surface description and generation, bi-cubic surface patch, Coons surfaces. *Gunasekera; D.*

553 Advanced Computer Graphics (3)

Interactive computer graphics as aid to engineer; advanced hardware devices; Raster graphics systems, color graphics, 3-D transformations and perspectives; use of matrices, perspective depth, hidden surface elimination, and various algorithms; shading and special effects, advanced graphics systems, device independent graphics systems; user interface design, fundamentals of geometric modeling, and use of Boolean operations. *Gunasekera; D.*

555 Mechatronics I (4)

Design of intelligent devices. Interfacing of micro- and minicomputers with machines. Microprocessor characteristics, actuator characteristics, visual pattern recognition, design of devices. Theory and laboratory. *Lew; Sp.*

556 Mechatronics II (3)

Prereq: 455. Kinematics and dynamics of computer-controlled machines, robot sensors, and robot-control language concepts. Short laboratory exercises and major robotics project on subjects mentioned above required. *Lew; D.*

557 CAD/CAM I (4)

Emphasis on teaching computer-aided design/computer-aided manufacturing with following topics covered: menu basis, training files, interactive graphics design system, mechanical design system, system interfaces with other software, data base management retrieval system, EDG-graphics editor, EDT-VAX/VM5 editor and VI UNIX editor; VAX/VM5-based DCL commands, introduction to UNIX and "C," and other topics as needed. Successful completion of an approved minor project also required. *Gunasekera, Mehta; D.*

558 CAD/CAM II (5)

Prereq: 557. Continuation of 557; emphasis on advanced application in (a) programming, (b) finite element pre/post processing and analysis, (c) B-Spline and sculptured surfaces, and (d) computer and direct numerical controls (CNC/DNC). Introduction to usage of third-party finite-element analysis software for metals, polymers, and composites, e.g., ALPID, NIKE, DYNA, TOPAZ, ABAQUS, POLY-CON, NASTRAN, etc. Successful completion of an approved major project also required. *Gunasekera, Mehta; D.*

560 Computer-Integrated Manufacturing/Processes (4)

Prereq: 450. Introduction to numerical control; control systems for NC; communication media; NC programming languages—SPPL and APT; mathematics for NC; Parametric Splines, Bezier Curves and B-Splines; sculptured surfaces, including Coons bi-cubic patch and B-surf. *Gunasekera; D.*

561 Design for Manufacture (4)

Interrelationship of design parameters and manufacturing processes. Special emphasis on design for machining, assembly, and automated manufacturing. Computer-aided design techniques and design with nonmetallic materials also discussed. *Halliday; Sp; Y.*

562 Manufacturing Processes (4)

Prereq: grad in ME, CHE, or IMSE. The basic theory of plasticity and its application to manufacturing processes. Applied theories of metal working processes such as forging, extrusion, rolling, and some aspects of machining; theories of polymer processing, composite and reinforced materials processing, use of application of materials information systems, and mapping techniques. *Gunasekera; W; Y.*

563 Mechanical Metallurgy (3)

Origin and control of mechanical properties of metals. Elasticity, plasticity, fatigue behavior, corrosion, and wear. Introduction to fracture mechanics. Thermal, mechanical, and chemical strengthening techniques. *Halliday; D.*

566 Analytical Modeling of Manufacturing Processes (4)

Modeling of hot forging and extrusion, sheet metal forming modeling using computer, geometric modeling, basis of rigid visco-plastic finite element method, variational theorems, complex boundary condition, typical case studies in manufacture of aero-engine and structural parts, computer simulation of production processes, use of graphics in display of data. *Gunasekera; D.*

568 Advanced NC and Computer-Aided Manufacturing (4)

NC systems, control system concepts, feedback control system elements, Laplace transforms, system stability and dynamic response of NC systems, NC machine control systems, information interface, input and output media, symbolic codes, verification of input, graphic proofing, advanced APT programming, mathematics for NC, complex surfaces, quadrics, sculptured surfaces, bi-cubic patch, B-surfaces, process optimization, CAM data base. *Gunasekera; D.*

570 Energy and the Environment (3)

Examination of ramifications of energy in contemporary society. Basic energy concepts; technical considerations of production of energy; conservation strategies; environmental and economic considerations; emerging energy technologies including nuclear, fusion, solar, and wind power. Course designed to prepare individual for effective participation in societal actions related to energy and power. *D.*

580 Graduate Colloquium (1)

Structured as an open graduate colloquium for discussion of present research topics as well as possible future areas of interest. Guest speakers, faculty, and graduate students presenting the results of their investigations, with discussion moderated by speakers. *F, W, Sp; Y.*

584 Problems in Thermal Machinery I (3)

Prereq: good academic record. Supervised research in thermal machines. Individual work on experimental or analytical project involving current problems. Elect two-term sequence to allow adequate time for completion of meaningful project. *D.*

585 Problems in Thermal Machinery II (3)

Continuation of 584. See 584 for description. *D.*

586 Problems in Thermal Machinery III (3)

Continuation of 584 and 585. See 584 for description. *D.*

589 Special Investigation (1-6)

F, W, Sp; Y.

591 Mechanical Vibrations I (4)

Characteristic phenomena of mechanical vibrations encountered in machines and structures (of one-degree-of-freedom) in their quantitative investigation. Simple harmonic motion; free, transient, and forced vibrations; damping effects; demonstrations; computer applications. Graduate credit for non-mechanical engineering majors only. *Halliday, Lew; F; Y.*

592 Mechanical Vibrations II (4)

Prereq: 591. Application of matrix methods; two-degree-of-freedom systems; lumped mass systems with several degrees of freedom; and methods for normal mode determination. 3 lec, 1 computation session. *Halliday; W.*

- 593 Lubrication and Bearing Analysis (3)**
Concepts of boundary, hydrostatic, and hydrodynamic lubrication and their application to different bearing geometries. McKee and McKee, Boyd, and Raimondi methods of bearing design and their optimization. Solid lubrication, porous, and gas bearings. Lubrication and wear in living and artificial human joints and human hipjoint prostheses. *Halliday; D.*
- 594 Advanced Machine Design (3)**
Prereq: 403. Advanced considerations in design and analysis of machine members, pressure vessels, impact loading, thermal stress analysis, fatigue in metals. 3 lec. *D.*
- 595 Introduction to Kinetic Theory and Statistical Thermodynamics (4)**
Kinetic theory, classical and quantum statistical mechanics with application to engineering devices. 3 lec. *D.*
- 596 Experimental Methods in Design (3)**
Investigation and evaluation of experimental methods used to obtain design and performance data. Techniques of photoelasticity, strain measurements, and vibration measurement. *Y.*
- 597 Methods of Engineering Analysis I (4)**
Prereq: MATH 340. Methods of analyzing equilibrium and eigenvalue problems in mechanical engineering and engineering mechanics; matrix methods; variational methods; numerical methods. *F; Y.*
- 601 Advanced System Analysis and Control (3)**
Prereq: 401, MATH 211 or 410 or 411. The application of modern control theories to the synthesis of dynamical systems. Topics include the analysis of the behavior of linear systems, controllability and observability. Synthesis in the eigenvalue domain: modal control. Synthesis of stable systems and optimal linear systems in the time domain. *Williams; W.*
- 604 Mechanics and Control of Multi-Degree-of-Freedom-Systems I (3)**
Techniques of analysis and design of multi-degree of freedom planar and spatial mechanical systems: kinematic structure, coordinate transformations, inverse solutions, workspace, path selection, dynamics, and control. *Williams; F.*
- 605 Dynamics: Theory and Applications I (3)**
Partial differentiation of vector functions in a reference frame, configuration constraints, generalized speeds, motion constraints, partial angular velocities, and partial linear velocities, inertia scalars, vectors, matrices, and dyadics, principal moments of inertia. *Lew; W.*
- 606 Dynamics: Theory and Applications II (3)**
Prereq: 605. Generalized active forces, contributing and noncontributing forces, generalized inertia forces, relationships between generalized active forces and potential energy, generalized inertia forces and kinetic energy. A continuation of 605. *Williams; D.*
- 607 Optimal Control of Dynamic Systems (3)**
Optimization problems for dynamic systems: functional and extremums; continuous systems with terminal and path constraints; integral constraints; multistage systems; feedback control for linear systems with quadratic costs; neighborhood extremal paths and second variation. *Lew; D.*
- 620 Free-Piston Stirling Machines (3)**
Prereq: 509 or 592, with 522. Analysis of free-piston Stirling cycle machines. Covers applications to power production, heat pumping, cryocooling, and refrigeration. Analytical solutions to multi-body dynamics and mechanical oscillators. Transient performance and stability. *Berchowitz.*
- 622 Design of Stirling Machines (3)**
Prereq: 522, with 620. Introduction to the design process. Stirling machine design procedures—scaling, heat exchanger sizing, pV sizing; configurations—crank, hybrid and free piston machines; examination and comparison of existing designs; general issues—materials, stress (fatigue, creep, rupture), seals and bearings, balancing; heat exchanger design, heat transport systems and burners. Group design projects may typically be one of the following: appropriate technology FPSE, regenerator test rig, free cylinder engine with linear alternator, simple crank engine, cooler, free-piston alpha engine, Ringbom engine, Rallis engine. *D.*
- 625 Stirling Machine Design Project (1–15)**
Prereq: 526, 514, 622. The capstone design project for the Stirling cycle machines—design option; students choose a mentor from the Stirling machine design specialists involved in the Stirling machine industry. *D.*
- 633 Numerical Heat Transfer and Fluid Flow (4)**
Prereq: 513, 546, or 547. Numerical solution techniques in heat and mass transfer, fluid flow, and related processes. Includes governing conservation equations, discretization methods, heat conduction, convection, diffusion, and calculation of flow field. *Alam; D.*
- 636 Applications of Numerical Methods in Mechanical Design (4)**
Prereq: CE 520/ME 557, ME 633. Application of engineering analysis and boundary element method to solve linear and nonlinear problems in engineering related to fluid flow, heat transfer, dynamics, plasticity, and convection. Selection and application of appropriate numerical technique. Other advanced topics related to Gaussian integration, frontal solutions, and algorithms for parallel processing will be introduced as needed. *Alam, Mehta; W.*
- 657 Seminar in Biotechnology (3)**
Discussion of advanced topics in the field of biotechnology. Includes such subjects as bioequipment design (mechanical and process), protein engineering, computer-aided biomolecular modeling, energetics and kinetics, and drug design. Recovery and purification of products and bioprocess consideration in using plant and animal cell cultures may be discussed depending on interest. *Mehta; Sp.*
- 659 Finite Element Applications in Bioengineering (5)**
Includes review of finite element technique (FEM); introduction to boundary element method (BEM); the biology and composition of bone; mechanical properties of bone and tissue; stress analysis of the femur, tibia, skull, spinal cord, and joints using finite element method; application of FE and BE techniques in bone prostheses and implants; composite material modeling of bones using Abaqus; analysis of blood flow in arteries treating it as a non-Newtonian fluid. Finite element packages such as I/FEM, Patran, Abaqus, BET, FIDNAP, NIKE, DYNA, and TOPAZ are used. *Mehta; Su; Y.*
- 675 Destructive Testing of Materials (3)**
Prereq: CE 524. Testing and analytical considerations in destructive testing of materials; interpretation of results and sources of errors in hardness, tensility, impact, fatigue, and pressure testing of materials; residual stress determination in formed metallic parts. *Dehghani.*
- 681 Research (1–15)**
F, W, Sp, Su; Y.
- 695 Thesis (1–15)**
F, W, Sp, Su; Y.
- 704 Mechanics and Control of Multi-Degree-of-Freedom Systems II (3)**
Prereq: 604. Advanced analysis and control techniques for multi-degree-of-freedom mechanical systems: closed-chain mechanisms, space manipulators and structures, redundant mechanisms, dynamic characterization, advanced strategies of control. *Lew, Williams; D.*
- 705 Dynamics: Theory and Applications III (3)**
Prereq: 606. Dynamical equations of motion, linearization, steady motions, and motions resembling state of rest, integrals of equations of motion, exact closed form solutions, numerical integration of differential equations of motion, determination of constraint forces and constraint torques, collisions, and small vibrations. A continuation of 605, 606. *Lew, Williams.*
- 712 Advanced Heat Transfer (5)**
Prereq: 513 or 514. Advanced analysis of heat transfer, with emphasis on mechanical engineering processes. Lumped, integral, and differential formulations, time dependent boundary conditions, steady periodic problems. Combined conduction, convection, and mass transfer in complex heat transfer processes. *Alam, Graham.*
- 720 Advanced Nonlinear Finite Element Analysis (5)**
Prereq: 551 or CE 520. Advanced study in finite element analysis of solids and fluids, with emphasis on methodologies for nonlinear problems. Fundamental theory and computer implementations of various techniques are examined. Restricted to small groups, with extensive student participation required. *Dehghani, Graham, Gunasekera, Sargand; F; Y.*
- 751 Advanced Computer-Aided Design (4)**
Prereq: CE 520 or ME 550N and ME 557. Application of advanced CAD techniques to mechanical design problems. Interactive computer programming, mechanical tolerancing. Solid modeling and finite element applications. Pre- and post-processing of FEM data. Automated mesh generation techniques. Cubic splines, B-splines, and sculptured surfaces. *Gunasekera; D.*
- 760 Advanced CAD/CAM/CAE of Dies and Molds (4)**
Prereq: 551 or 557. Formulation of the design basis for dies and molds; analysis of material flow through dies; development of criteria for design optimization, heat transfer, and die stress analysis. Theoretical basis for describing 3-D die geometry of complex dies for computer-aided manufacture. Applications in extrusion, forging die casting, and injection molding dies. Development and use of computer software in CAD/CAM/CAE of dies. *Gunasekera; D.*
- 762 Advanced Topics in Non-Newtonian Fluid Dynamics (5)**
Prereq: 557, 633, or CE 520. Includes constitutive modeling including power law fluids, Maxwell fluids, and models of differential and integral type. Formulation schemes for non-Newtonian fluid dynamics using finite element analysis and its applications. *Gunasekera, Mehta.*
- 776 Special Topics in Materials Processing (4)**
Prereq: 563 or CHE 620. Advanced topics in selected areas of materials processing technology. Processing by deformation, solidification, and deposition are possible areas of study. *Alam, Dehghani, Gulino; D.*
- 784 Fracture and Fatigue of Engineering Materials (4)**
Prereq: CE 528 or CE 523. Analysis of crack-tip stress field, energy concepts and crack growth criteria, conservation integrals, crack life prediction, mechanisms of fatigue damage, and high-cycle and low-cycle fatigue damage. *Pasic; D.*

785 Plasticity: Theory and Application (4)

Prereq: 597, CE 523, or CE 529. Theory of plasticity, stress-strain relations for perfectly plastic and strain hardening materials, yield criteria and constitutive equations of plastic bodies, boundary value problems of plasticity, the slip-line theory and applications. *Dehghani*.

797 Advanced Engineering Analysis (4)

Prereq: 597, CHE 642. Unified approach for obtaining solutions to a variety of engineering problems, with emphasis on mechanical engineering topics such as transport processes, nonlinear vibrations, and dynamics. Focus on advanced/approximate methods. *Pasic, Alam; D.*

790 Special Topics in Mechanical Engineering (1-6)

Prereq: perm. Advanced topics in selected areas in mechanical engineering.

791 Special Investigations (1-6)

Prereq: perm. Advanced topics in mechanical engineering with an emphasis on individual study.

College of Fine Arts

Jennings House

Raymond Tymas-Jones
Dean

The College of Fine Arts at Ohio University offers graduate degrees in five of its six schools. The School of Art offers an M.F.A. in ceramics, painting, photography, printmaking, sculpture, art history, and art history/studio, as well as an M.A. in art education and photography. The School of Comparative Arts offers a Ph.D. in liberal humanistic study of the arts of western civilization. The School of Dance does not offer a graduate degree, but graduate courses are available each quarter. The School of Film offers an M.F.A. in film scholarship or production and an M.A. in scholarship. The School of Music offers a Master of Music in applied music (performance and performance-pedagogy), history and literature, theory, composition, music therapy, and music education. The School of Theater offers an M.F.A. or M.A. in playwriting, an M.A. in theater history and criticism or theater, and an M.F.A. through professional programs in acting, directing, and production design.

An interdisciplinary M.A. is also available. See the Individual Interdisciplinary Programs section for additional information.

Graduate support is available in the form of teaching, research, and graduate associateships. Graduate internships are also available for selected degree programs. You can obtain information on graduate support and financial aid by contacting the director of the graduate program in each school.

School of Art

The School of Art is dedicated to the development of diverse and exceptional artists, scholars, and educators. To this end, the school promotes an environment conducive to creative and scholarly development.

A three-year Master of Fine Arts (M.F.A.) degree in studio arts (ceramics, painting, photography, printmaking, sculpture), a two-year M.F.A. in art history, and a three-year M.F.A. in art history/studio are offered. The School of Art also offers a Master of Arts degree in art education.

For further information, write to the assistant director for Graduate Affairs, School of Art, Ohio University, Seigfred Hall, Athens OH 45701-2979.

Degree Requirements

A normal full-time academic load for a graduate student is 15 to 18 credit hours per quarter. Thesis hours must be taken during the quarter in which the thesis will be presented.

Art Education

The graduate program leading to the M.A. in art education requires the completion of at least 45 quarter hours of graduate coursework and an advisor-approved thesis that demonstrates scholarly abilities. Teacher certification is not required for entry into the program; however, evidence of ability to complete and benefit from the program must be provided for admission.

Art History

Upon entry to the art history program, you are assigned an advisor with whom you are required to consult each quarter. By the beginning of the fourth quarter of study, and with the advice of the faculty, you must submit a proposal for a thesis. The program concludes with the submission of the thesis (approved by the advisor) that demonstrates your scholarly research and a final review by the thesis committee.

The graduate program leading to the M.F.A. in art history requires the completion of at least 90 quarter hours of graduate study and a minimum of 15 thesis hours. Directed electives are selected in consultation with faculty. Proof of reading competency in French, German, or another language approved by the faculty is required. Standard language examinations or the equivalent of one year's coursework without credit may be used. The language requirement should be completed by the end of your sixth quarter.

Art History/Studio

To be recommended as a degree candidate, you must submit both studio and art history work for review by faculty committees at the end of the fourth quarter. The program concludes with a thesis exhibition, final thesis review, a three-hour art history comprehensive examination, and final art history review.

The graduate program leading to the M.F.A. in art history/studio requires the completion of at least 90 hours of graduate coursework and a minimum of 45 thesis hours.

Ceramics, Painting, Photography, Printmaking, or Sculpture

The graduate program leading to the M.F.A. in a studio area requires the completion of at least 90 quarter hours of graduate coursework and a minimum of 45 thesis hours. To be recommended as a degree candidate, you must submit work for review by a faculty committee at the end of the fourth quarter of study. The program concludes with a thesis exhibition and final thesis exam.

Application

You must have a bachelor's degree from an accredited institution and a grade-point average of at least 2.5. Submit a completed application form, fee, and two official transcripts from each post-secondary institution attended to the Office of Graduate Student Services, Ohio University, Wilson Hall, Athens OH 45701-2979.

You also must submit three letters of recommendation to the Assistant Director for Graduate Affairs, School of Art, Ohio University, Seigfred Hall, Athens OH 45701-2979. The final date for application is February 1. Send all application materials well in advance of the due date; only complete applications are considered.

Portfolio Requirements for Studio and Art Education

If you plan to concentrate in art education, art history/studio, ceramics, painting, printmaking, or sculpture, you must submit no more than 20 slides in a plastic page-size sheet to the Assistant Director for Graduate Affairs, School of Art, Ohio University, Seigfred Hall, Athens OH 45701-2979. Mark each slide with your name, medium used, size, indication of top, and date executed. Slides are to be accompanied by a corresponding list that includes all information on the slides. Photography applicants may submit prints or slides. Enclose a self-addressed postage-paid envelope for return of slides.

Writing Sample Requirements for Art Education, Art History, and Art History/Studio

If you plan to concentrate in art education, art history, or art history/studio, you must submit a term paper or some other example of your scholarly writing and research skills.

If you are an applicant for art history/studio, you must indicate on the application form the specific studio area in which you wish to concentrate (painting, photography, sculpture, etc.).

Financial Aid

The School of Art awards approximately 30 teaching associateships and 30 quarters of full-tuition scholarships each year. Selection is by competition and is based upon available openings and funding. If you receive funding, you must maintain a 3.0 g.p.a. to retain support. Both beginning and continuing graduate students are eligible for

graduate appointments. To be considered for associateships or scholarships, mark the appropriate items on the application for graduate admission.

See the Financial Aid section for more information on the Federal Perkins Loan, Federal Work Study, and other forms of financial aid.

Courses

Art Education (ART)

- 560 Studies in Art Education (4)**
Study of philosophical and curricular movements in art education. *Staff; F; Y.*
- 561 Research in Art Education (4)**
Introduction to qualitative and studio research methodologies. *Staff; F; Y.*
- 562 Research Methods in Art Education (4)**
Research methods appropriate to art education; examination of research in the discipline; planning individual research projects; and preparation for thesis. *Staff; W; Y.*
- 563 Proseminar in Art Education/Current Issues in Art Education (4)**
Study of contemporary issues and developments in art and art education; and development and completion of a professional portfolio. Max. 12 hours. *Staff; Sp; Y.*
- 564 Museum and Community Art Education (3)**
Series of two courses that expands the contexts for art education professionals. Students develop interactive art programs for elementary, middle, and high schools through collaboration with galleries, museums, and community art exhibitions. Max. 6 hours. *Staff; W, Sp; Y.*
- 692 Art Education Thesis (6-12)**
Prereq: 30 hrs graduate coursework. *F, W, Sp, Su; Y.*

Art History (AH)

- 520 Greek Art (4)**
Art of ancient Greece. *Staff.*
- 521 Roman Art (4)**
Art of ancient Rome. *Staff.*
- 522 Medieval Art (4)**
Art of Europe from age of Constantine to art of Giotto. *Bays.*
- 523 Italian Renaissance Art (4)**
Art of 15th-century Italy. *Bradshaw.*
- 523A Italian Renaissance Art: Special Topics (4)**
Focused topics on Italian Renaissance art (c.1300-1550). An artist, school, period, and/or issue will be examined. *Bradshaw.*
- 524 Northern Renaissance Art (4)**
Art of northern Europe in 15th and 16th centuries. *Bradshaw.*
- 525 Art of High Renaissance and Mannerism (4)**
Art of 16th-century Italy. *Bradshaw.*
- 526 Baroque and Rococo Art (4)**
Art of 17th- and 18th-century Europe. *Bradshaw.*
- 527 Art of 19th Century (4)**
European art from French Revolution to 1900. *Lamb.*

527A Modern Art: Special Topics Seminar (4)
Focused on European and American art (c. 1800-1945). A single issue, period, or artist is emphasized. *Staff*.

528 Modern Art (4)
Specific movements and artists since 1900. *Staff*.

529 The Arts of the United States (4)
Art in the U.S. from the Colonial period. *Staff*.

530 The Arts of Asia (4)
Art of India, China, and Japan. *Staff*.

530A Arts of Asia: Special Topics Seminar (4)
Focused topics on the art of the ancient Far East. A single issue, tradition, or culture is emphasized. *Staff*.

531 Pre-Columbian Art (4)
Preconquest art of Mexico, Central America, and South America. *Perani*.

532 West African Art (4)
The visual art traditions, including sculpture, ceramics, textiles, and architecture of the forest and savanna zones of West Africa. *Perani*.

532A African Art: Special Topics Seminar (4)
Focused topics on African art. A single issue, tradition, or culture is emphasized. *Perani*.

533 Central African Art (4)
The visual art traditions, including sculpture, ceramics, textiles, and architecture of the forest and savanna zones of central Africa. *Perani*.

534 Ancient Near Eastern Art (4)
Art of Egypt, Mesopotamia, Assyria, and Babylonia. *Staff*.

535 Art Since 1945 (4)
Issues and movements in the arts since WWII. *Staff*.

536 Modernist Theory and Criticism (4)
An overview of the major theoretical and critical positions on the visual arts in modernism, especially from the late 19th century to the late 1970s. Topics include formalism, expressionism, and the relationship of art to nature and society. *Patin*

537 History of Photography (4)
History and development of photography as art, science, and industry. Leading photographers and their contributions to development of the art. *Lamb*.

538 Contemporary Art Theory and Criticism (4)
An overview of the major theoretical and critical positions on the visual arts and contemporary culture. Topics include semiotics, poststructuralism, feminism, simulation, and theories of cultural and ethnic difference. *Patin*

540 Selected Topics in Art History (4)
Selected problems in the visual arts, such as interdisciplinary topics, cross-cultural studies, thematic treatments, technical investigations, and approaches to material. Content may vary with each offering of this course. *Staff*.

550 Art History Research and Publication (3)
Prereq: AH grad student. Intensive study of projects of limited scope. *Staff*.

560 Art Historiography (4)
Bays.

700 Art History Thesis (1-15)
Staff.

792 Independent Study—Projects (1-6)
Staff.

793 Independent Projects—Reading (1-3)
Staff.

Ceramics (ART)

515 Ceramics (3-6)
Development of skills and exploration of processes leading toward personal expression. *F, W, Sp, Su; Y.*

516 Ceramics (3-6)
Prereq: 515. *F, W, Sp, Su; Y.*

610 Ceramics Seminar (3)
Lectures, discussions, field trips, slide and film presentations dealing with contemporary issues in ceramic art. *F; Y.*

615 Ceramics (3-6)
Development of concepts leading toward studio thesis. *F, W, Sp, Su; Y.*

616 Ceramics (3-6)
Prereq: 615. *F, W, Sp, Su; Y.*

715 Ceramics (3-6)
Prereq: 616. *F, W, Sp, Su; Y.*

716 Ceramics (3-6)
Prereq: 715. *F, W, Sp, Su; Y.*

718 Ceramics Written Thesis (6)
F, W, Sp, Su; Y.

719 Ceramics Studio Thesis (5-18)
F, W, Sp, Su; Y.

Painting (ART)

505 Painting (3-6)
F, W, Sp, Su; Y.

506 Painting (3-6)
Prereq: 505. *F, W, Sp, Su; Y.*

518A Drawing (3-6)
F, W, Sp, Su; Y.

519A Drawing (3-6)
Prereq: 528. *F, W, Sp, Su; Y.*

600 Painting Seminar (3)
Discussions, readings, presentations, and papers related to developments in recent painting. *F; Y.*

605 Painting (3-6)
Prereq: 506. *F, W, Sp, Su; Y.*

606 Painting (3-6)
Prereq: 605. *F, W, Sp, Su; Y.*

705 Painting (3-6)
Prereq: 606. *F, W, Sp, Su; Y.*

706 Painting (3-6)
Prereq: 705. *F, W, Sp, Su; Y.*

708 Painting Written Thesis (6)
F, W, Sp, Su; Y.

709 Painting Studio Thesis (5-18)
F, W, Sp, Su; Y.

Photography (ART)

591A Photographic Processes (5)
Intensive study of black and white materials and their creative uses. 2 lec, 6 lab. *Williams; F; Y.*

591B Photographic Processes (5)
Continuation of 591A. Emphasis on quality control in printing. *Williams; W.*

591C Photographic Processes (5)
Continuation of 591A and 591B. *Sp; Y.*

690 Photographic Seminar (3)
Contemporary trends and concepts of photographic art as basis for individual studies. *Staff; F; Y.*

691A Graduate Study in Photographic Arts (5-10)
Individual practice under instructor's supervision. Max. of 10 hrs allowed from 691 series. *Staff; F; Y.*

691B Graduate Study in Photographic Arts (5-10)
Continuation of 691A. Max. of 10 hrs allowed from 691 series. *Staff; F; Y.*

691C Graduate Study in Photographic Arts (5-10)
Continuation of 691A and 691B. Max. of 10 hrs allowed from 691 series. *Staff; Sp; Y.*

791A Advanced Study in Photographic Arts (5-10)
Prereq: 10 hrs in 691 series. Individual practice under instructor's supervision. Max. of 15 hrs allowed from 791 series. *Staff; F; Y.*

791B Advanced Study in Photographic Arts (5-10)
Prereq: 10 hrs in 691 series. Continuation of 791A. Max. of 15 hrs allowed from 791 series. *Staff; W; Y.*

791C Advanced Study in Photographic Arts (5-10)
Prereq: 10 hrs in 691 series. Continuation of 791A and 791B. Max. of 15 hrs allowed from 791 series. *Staff; Sp; Y.*

798 Photography Written Thesis (6)
Staff; F, W, Sp, Su; Y.

799 Photography Studio Thesis (5-18)
Staff; F, W, Sp, Su; Y.

Printmaking (ART)

541 Printmaking (3-6)
F, W, Sp, Su; Y.

542 Printmaking (3-6)
Prereq: 541. *F, W, Sp, Su; Y.*

546 Art on Computers (4)
An exploration of the computer's capabilities and its potential to expand the artist's visual vocabulary.

640 Printmaking Seminar (3)
Discussions, readings, presentations, and papers on topics of specific interest and concern to printmakers. *F; Y.*

641 Printmaking (3-6)
Prereq: 542. *F, W, Sp, Su; Y.*

642 Printmaking (3-6)
Prereq: 641. *F, W, Sp, Su; Y.*

741 Printmaking (3-6)
Prereq: 642. *F, W, Sp, Su; Y.*

742 Printmaking (3-6)
Prereq: 741. *F, W, Sp, Su; Y.*

748 Printmaking Written Thesis (2-6)
F, W, Sp, Su; Y.

749 Printmaking Studio Thesis (5-18)
F, W, Sp, Su; Y.

Sculpture (ART)

531 Sculpture (3-6)
F, W, Sp, Su; Y.

532 Sculpture (3-6)
Prereq: 531. *F, W, Sp, Su; Y.*

630 Sculpture Seminar (3)
Projects, research, and discussion of topics of specific interest and concern to sculptors. *F; Y.*

631 Sculpture (3-6)
Prereq: 532. *F, W, Sp, Su; Y.*

632 Sculpture (3-6)

Prereq: 631. F, W, Sp, Su; Y.

731 Sculpture (3-6)

Prereq: 632. F, W, Sp, Su; Y.

732 Sculpture (3-6)

Prereq: 731. F, W, Sp, Su; Y.

738 Sculpture Written Thesis (2-6)

F, W, Sp, Su; Y.

739 Sculpture Studio Thesis (5-18)

F, W, Sp, Su; Y.

Inter-Area (ART)**500 Graduate Teaching Associates Seminar (3)**

Assists graduate teaching associates with practical and pedagogic support. Coursework investigates issues specific to teaching in studio.

601 Interdisciplinary Seminar (3)

Readings, discussions, and presentations exploring relationship between various visual arts disciplines. W; Y.

7792 Independent Study—Projects (1-6)

F, W, Sp, Su; Y.

793 Independent Study—Reading (1-3)

F, W, Sp, Su; Y.

School of Comparative Arts

The Ph.D. program in comparative arts is an academic program of liberal humanistic study in the arts of western civilization. Fundamental emphasis is placed on the ability to deal with works of art on their own terms: that is, the competence to analyze a work in any basic medium using the procedures of accepted modes of analysis within the scholarly tradition of each artistic discipline. But, as our name implies, departmental work is further focused upon the exploration of relationships between works of art and their significant cultural and intellectual contexts. There is no intention in this program to present a choice between scholarship and creative expression. Instead, the program is based on the belief that knowledge and understanding of your heritage and the development of acute critical abilities can only enhance the creative spirit, not hinder it.

Degree work is thus structured around a historical-theoretical-critical basis, involving period studies in each of the basic artistic disciplines, as well as interdisciplinary seminars.

Admission Requirements

You should have completed a master's degree from a reputable accredited university. This program of study may be in historical and critical studies of any major art discipline or in a studio or performance field. If your master's degree is in modern languages, literature, history, or philosophy, and you have interest and training in arts fields, you are also encouraged to apply.

Your application should include:

- 1** Official transcripts of all previous degree work.
- 2** At least three letters of recommendation from people qualified to speak of your academic achievement and potential.
- 3** A three- to five-page essay in which you discuss reasons for selection of interdisciplinary graduate degree work and a statement of philosophical and practical expectations from such study.
- 4** A sample research paper.
- 5** Scores for the Graduate Record Examination (quantitative and qualitative aptitude tests) or the Miller Analogies Test.

The department recommends a personal interview when at all possible.

Most admissions to the program are for fall entry. Submit all application materials by the beginning of March, as basic admission decisions for the following year are generally made by the middle of April.

Program Requirements

The basic curriculum for the degree consists of:

- 1** Historical-theoretical studies: From the arts of theater, music, painting, sculpture, etc., two are selected as areas of concentration requiring a minimum of six courses in each. In the area not selected as one of the areas of concentration, a minimum of one course is required.

2 Seminar: A full cycle of the Seminar in Comparative Arts, consisting of all six courses, is required.

3 Academic minor: Three courses in aesthetics.

4 Studio Minor: Students without studio/performance experience are required to take three courses.

You are also required, as a part of the total program, to demonstrate proficiency in at least two scholarly tools outside of, but related to, your area of concentration as determined by the graduate committee of the department. You may choose from:

- 1** A reading knowledge of two foreign languages.
- 2** A reading knowledge of one foreign language plus at least three graduate courses in the literature of that language.
- 3** A reading knowledge of one foreign language plus satisfactory competence in a related tool (music theoretical systems, statistics, etc.) The music theoretical systems option is not open to students with graduate training in a music area.

Upon petition, the department will accept test scores from the Educational Testing Service that demonstrate reading proficiency in a foreign language, provided that the test score is at least 600 and no more than three years old.

Minimum course requirements for the degree can ordinarily be completed in six to eight quarters of full-time residency, of which six quarters must be continuous. Toward the end of your sixth full quarter of study or when the coursework is virtually completed, and upon recommendation of the graduate committee of the department, you must take a comprehensive examination in which you demonstrate the ability to make historical, philosophical, and comparative analyses of works of art.

In addition to these requirements, all candidates for the Ph.D. in comparative arts must register for six quarters of CA 891 Seminar in Comparative Arts.

All candidates for the degree are also required to teach and/or engage in some performance activity as determined and supervised by the department.

A dissertation (and oral defense) that is comparative in nature is the culminating demonstration of your scholarly abilities.

Requests for financial aid may accompany applications for admission. Most graduate teaching associateship appointments are made for a nine-month academic year period beginning in the fall quarter.

Comparative Arts Courses (CA)

520X Problems in Comparative Arts (The Fine Arts in Florence) (1-6)

Prereq: enrollment in Italy program. Artistic expression in Florentine life as it may be seen in examples of architecture, painting, sculpture, and music. *Sp; Y.*

581 Individual Problems (1-6)

F; W; Sp; Su; Y.

581X Individual Problems (1-6)

Prereq: perm; study abroad. *Sp; Y.*

700 Teaching Seminar in Comparative Arts (4)

Prereq: CA grad student. Seminar-practicum designed to prepare TA for assumption of classroom responsibilities. Examines content, method, audiovisual materials necessary to teaching of Introduction to Fine Arts sequence (CA 117, 118). *Haigney; F; Y.*

701 Music Theory Systems (4)

Prereq: CA grad student. Seminar-practicum designed to prepare TA for assumption of classroom responsibilities. Examines content, method, audiovisual materials necessary to teaching of Introduction to Fine Arts sequence (CA 117, 118). *Haigney; F; Y.*

702 Music Theory Systems (4)

Prereq: 701. For nonmusician graduate students. Introduces musical theoretical systems ca. 300 B.C. to present. *Wortman; W; Y.*

703 Music Theory Systems (4)

Prereq: 702. For nonmusician graduate students. Introduces musical theoretical systems ca. 300 B.C. to present. *Wortman; Sp; Y.*

711 Music in Antiquity and the Middle Ages (4)

Cultural history of music to ca. 1410. *Wortman; F; A.*

712 Music in the Renaissance (4)

Cultural history of music, 1410-ca. 1600. *Wortman; W; A.*

713 Music in the Baroque Period (4)

Cultural history of music ca. 1600-ca. 1730. *Wortman; Sp; A.*

714 Music in the Classic Period (4)

Cultural history of music ca. 1730-ca. 1825. *Wortman; F; A.*

715 Music in the 19th Century (4)

Cultural history of music in 19th century. *Wortman; W; A.*

716 Music in the 20th Century (4)

Cultural history of music in 20th century. *Wortman; Sp; A.*

721 The Arts in Antiquity (4)

Artistic development between Minoan/Helladic cultures to advent of Constantine. *Smith; F; A.*

722 Medieval Art (4)

Art of Europe from age of Constantine to art of Giotto. *Smith; W; A.*

724 Northern Renaissance Art (4)

Art of northern Europe in 15th and 16th centuries. *Smith; Sp; A.*

725 Italian Renaissance and Mannerist Art (4)

Art and history of quattrocento, cinquecento Italy. *Smith; Sp; A.*

726 Baroque and Rococo Art (4)

Art of 17th- and 18th-century Europe. *Smith; F; A.*

727 Art of 19th Century (4)

European art from French Revolution to 1900. *Smith; W; A.*

728 Modern Art (4)

Specific movements and artists since 1900. *Smith; Sp; A.*

741 Art and Beauty in Antiquity and Middle Ages (4)

First in a series of three seminars studying concepts in art, beauty, creativity, aesthetic function, and experience. *Chojna; F; Y.*

742 Art Theory and Criticism: Modernity (4)

Chojna; W; Y.

743 Art and Society Now: Special Topics (4)

Chojna; Sp; Y.

770 Greek Theater and Drama (4)

First in series of eight seminars covering theater and drama of western world in depth from prehistoric times to contemporary. *Haigney; F; A.*

771 Roman and Medieval Theater (4)

Haigney; W; A.

772 Renaissance Theater and Drama (4)

Haigney; Sp; A.

773 Restoration and 18th-Century Theater (4)

Haigney; D.

774 Baroque European Theater (4)

Haigney; F; A.

775 19th-Century European Theater (4)

Haigney; W; A.

776 Contemporary Theater (4)

Haigney; Sp; A.

881 Individual Problems (1-15)

F; W; Sp; Su; Y.

891 Seminar in Comparative Arts (4)

Team taught; *F; W; Sp; Y.*

892X Individual Problems (4-15)

Prereq: study abroad. *Sp; Y.*

895 Dissertation (1-15)

Dissertation as recommended by department. *F; W; Sp; Su; Y.*

School of Dance

The School of Dance does not offer an advanced degree program. However, you may include the following graduate courses in an individual interdisciplinary program of study culminating in a master's degree arranged through the Office of Graduate Student Services. (See the Individual Interdisciplinary Programs section and the Comparative Arts listing in this section.)

530 Dance Movement Laboratory (1-5)

Investigation of individual problems and capacities related to the production of movement. Explores the means to improve efficiency and expand qualitative range of the mover through application of specific somatic modalities. *D.*

531 Analysis of Dance Movement (2)

Explores skeletal alignment and deviation, muscular development and function, and mechanical efficiency in production of dance movement. Basic to course study is thorough understanding of principles of stability and motion as they relate to dance. *Scott.*

532 Dance Kinesiology Seminar (2)

Offers study and in-depth analysis of kinesiological principles, their application in dance class, and to training of dancers. *Walchli.*

578 Seminar in Dance History and Criticism (4)

Development of Euro-American dance in the 20th century, with focus on contemporary dance through the present. Research projects. *F; Y.*

579 Seminar in Dance History and Criticism II (4)

Tribal forms: survey of dance forms and their functions in societies including mythic rituals and dance-drama. Research projects. *Sp; A.*

580 Seminar in Dance History and Criticism III (4)

Development of Euro-American dance from classic times through 20th-century ballet, with emphasis on Baroque, Romantic, and Diaghilev periods. Research projects. *Brooks; W; A.*

690 Independent Study (1-10)

694 Internship (1-6)

Course provides credit for internship experience. Internship allows individual to gain real experience in field of dance and related areas, e.g., arts administration, apprentice/performing or choreography, technical production. *Bailin; F; W; Sp; Su; D.*

School of Film

The School of Film offers two graduate degree programs: the Master of Fine Arts (M.F.A.) and the Master of Arts (M.A.). The M.F.A. program is a professional three-year program of study for talented individuals seeking advanced training in directing, screenwriting, producing, cinematography, editing, and motion picture sound with a solid background in film history, theory, and criticism. The M.F.A. is a terminal degree and is designed for students who wish to enter the film industry, to teach at the college or university level, or to make their way as an independent film artist.

The M.A. program is a carefully structured two-year program in international film scholarship for students planning continued study at the doctoral level.

The M.F.A. and M.A. programs are designed to allow the entrance of talented students with no formal film training who have demonstrated extensive experience in another medium or academic discipline. While prior achievement in filmmaking, video, or film scholarship is not necessary, acceptance to graduate study in the school requires a major commitment to these areas of study.

Graduate study in the School of Film should not be perceived in terms of a vocational or trade school; technical knowledge and skills are offered as tools to achieve creative conceptual goals. Further, because the film discipline requires full integration and knowledge of related disciplines, all graduate study in film requires a minor area of study outside the school.

The School of Film publishes *Wide Angle*, a quarterly journal of film; hosts the Ohio University Film Conference; and, with the Peterson Sound Studio, provides students with access to an on-site professional sound mixing facility. The School of Film cooperates with the Athens Center for Film and Video, which sponsors the annual Athens International Film and Video Festival.

M.F.A. Program

The M.F.A. program involves intensive coursework in film production and film scholarship. The program requires 135 hours of graduate study, including a minor area of study in a related discipline, a 15-credit hour second-year production project, and the completion of a creative thesis. You will determine the scope and nature of the thesis with your thesis advisor and the film faculty; a thesis can take the form of (a) a thesis film or films of any genre, (b) a thesis videotape or group of videotapes, or (c) a feature length screenplay or group of screenplays.

You are required to maintain a 3.0 average in all coursework. Your overall creative and scholastic performance is formally evaluated in three steps: advancement to candidacy, portfolio review, and thesis defense. Failure twice at any stage of the evaluation process will result in denial of further enrollment in the M.F.A. program.

Advancement to Candidacy

You are evaluated at the end of your third quarter of study. At that time, you are required to have completed 48 hours of coursework and must submit one completed 16mm answer print produced at Ohio University of graduate-level quality and a minimum of one research paper demonstrating graduate-level coursework, writing, and scholarship.

Portfolio Review

After advancement to candidacy and the completion of a second year of full-time study, you are required to submit a portfolio of creative work completed at Ohio University including a second-year film to the faculty for formal review.

Thesis Defense

After completion of the creative thesis, you must successfully defend your thesis before the thesis committee.

M.A. Program

The M.A. in international film scholarship is a two-year program, designed to prepare students for further study at the doctoral level. The program requires 75 credit hours and a written thesis.

Coursework for the program includes film theory and criticism, international film history, contemporary issues in international film, one quarter of film production, and additional courses in film aesthetics and analysis. The program requires completion of a minor area of study in a second language or in international studies for those who already have a second language. The minor area of study is selected in consultation with a faculty advisor.

Final degree requirements include a comprehensive written examination administered during the third quarter of enrollment, evaluated by members of the School of Film faculty. Failure twice at this stage of the evaluation process will result in denial of further enrollment as an M.A. candidate.

After you have completed comprehensive examinations, consulted with your advisor, submitted a thesis prospectus to the film faculty, and selected a thesis committee, you begin your written thesis. After completing the thesis, you must complete an oral defense before the thesis committee.

Admission

Because certain core courses must be taken in sequence, admission to all graduate programs in the School of Film is restricted to fall enrollment.

To apply, you must demonstrate a minimum grade-point average of 3.0 for your undergraduate major and a bachelor's degree or its equivalent from an accredited institution. Your undergraduate degree may be in any discipline. Supporting documents required are (a) a transcript of all undergraduate work; (b) three letters

of recommendation; (c) a formal application with fee; (d) a sample of your written work consisting of a paper or papers on any subject—such as a research paper, article, or critical analysis; (e) a 500-word personal essay on your goals in pursuing graduate study in film and the relationship of previous education and experience to these goals; and (f) for M.F.A. applicants only, examples of creative work such as a film, videotape, or portfolio of work from another medium. GRE scores are not required.

Send transcripts, formal application, and fees directly to the Office of Graduate Student Services. Your application cannot be processed until the application fee has been received. Send all other materials to the director, School of Film, Ohio University, Lindley Hall, Athens OH 45701-2979. The normal deadline for receipt of applications is February 15.

A limited number of scholarships and graduate associateships are available. While a majority of these awards are given to students who have already been approved for M.F.A. candidacy, highly qualified students may receive scholarships or graduate associateships during their first year on campus.

Film Courses (FILM)

501 Film Symposium (1)

Current issues of film studies. Presentations by students, faculty, and guest speakers. *F, W, Sp.*

521 International Film I (4)

Analysis of the relationship between film and culture, with emphasis on how cultural meanings influence film aesthetics and critical assessment of the medium. Examination of the work of such nations as Brazil, China, India, Sweden, and the United States. Weekly screenings. *F.*

522 International Film II (4)

Development of a nation's or cultural region's filmmaking, with emphasis on the films of self-defined identity groups such as Asian- or African-American and women's films. Weekly screenings. *W.*

523 International Film III (4)

Aesthetics and uses of film and related technologies in the study of Western and non-Western peoples, with emphasis on ethnographic and documentary filmmaking. Weekly screenings.

531 Film History I (4)

Study of the history of the motion picture. Emphasis on alternatives to the film canon and revisionist approaches to film history. Weekly screenings. *F.*

532 Film History II (4)

History of international silent and sound documentary film. Weekly screenings. *W.*

533 Film History III (4)

History of international silent and sound experimental film. Weekly screenings. *Sp.*

538 Studies in Documentary Film (4)

Development of naturalistic and polemic traditions, cinema verité, and personal documentary. Weekly screenings.

541 Film Analysis (4)

Overview for screenwriters and directors of dramatic and filmic structure in contemporary narrative film. A lecture/screening format is used to study dramatic action, characterization, plot, and scene structure; students analyze motion pictures as well as scripts on which they were based.

542 Scriptwriting (4, max 12)

Introduction to craft of developing narrative screenplay. Workshop/tutorial approach to study of screenplay structure, format, dialogue, and theory, culminating in completed screenplay.

543 Advanced Scriptwriting (4)

Prereq: 541 and 542. Seminar/tutorial approach to the study of advanced problems in writing the narrative screenplay.

544 Media-Arts Management (4)

Administration, fiscal management, marketing/promotion and media arts programming as applicable to arts management and nonart situations involving similar office/fiscal activities. May be repeated up to 3 times.

551 Film Theory and Criticism I (4)

Prereq: 531. Examination of various approaches to film theory and criticism including formal aspects of cinema, tools for stylistic analysis, and ideological implications of film. Weekly screenings. *F.*

552 Film Theory and Criticism II (4)

Prereq: 551. Examination of materialist approaches to film theory and criticism including works of Eisenstein, Arnheim, and Burch. Weekly screenings. *W.*

553 Film Theory and Criticism III (4)

Prereq: 551. Topics in film theory and criticism including feminist perspectives, political cinema, theatricality in film, structuralist and psychoanalytic approaches to film. Weekly screenings. *Sp.*

561 Motion Picture Production I (5)

Prereq: major. Professional 16mm film production. Instruction in basic camera and lighting technique, elementary film structure, and in-camera editing, leading to production of individual silent film projects. *F.*

562 Motion Picture Production II (5)

Prereq: 561. Continuation of 561 introducing color emulsions and lighting techniques, leading to production of individual color, non-synch film project. *W.*

563 Motion Picture Production III (5)

Prereq: 562. A continuation of 562 focusing on advanced sound motion picture production techniques, leading to an individual color synch-sound film project. *Sp.*

564 Video Art I (4)

The development of contemporary video and music video within the context of art. Emphasis on time, motion, and color.

565 Video Art II (4)

Prereq: 564. A continued study of contemporary video and music video within the context of art with emphasis on recent technological innovations and their effect on expression.

566 AVID Editing I (5)

Prereq: 561. Philosophical and practical blending of film and video with emphasis upon current industrial standards for film and video production.

567 AVID Editing II (5)

Continuation of 566.

571 Film Topics Seminar (1-5)

Investigation of selected motion picture topic announced before registration. Focus may be scholarly/critical, industry related, or an aspect of motion picture production or screenwriting. Topics and credit hours vary. *F.*

572 Film Topics Seminar (1-5)

See 571 for description. *W.*

573 Film Topics Seminar (1-5)

See 571 for description. *Sp.*

583 Film/Video Post-Production (2)

Practicum course in post-production for students with a film or video project requiring a final edit, conforming, and sound mix. *F, W, Sp.*

633 International Film Seminar I (4)

Advanced topics in film scholarship. Weekly screenings. *F.*

634 International Film Seminar II (4)

Advanced topics in film scholarship. Weekly screenings. *W.*

635 International Film Seminar III (4)

Advanced topics in film scholarship. Weekly screenings. *Sp.*

661 Cinematography (3-5)

Prereq: 563. Advanced study of aesthetics, techniques, and approaches to cinematography.

662 Editing (3-5)

Prereq: 563. Advanced study of techniques and aesthetics of film and video editing.

663 Film/Video Sound (3-5)

Prereq: 561. Advanced study of audible elements of film including dialogue, sound effects, music, dubbing, looping, and post-production mixing.

664 Directing (3-5)

Prereq: 561. Examination of various theories and techniques of motion picture directing including script analysis and interpretation, directing actors for film and video, *mise-en-scene*, coverage, and continuity through practical directing exercises and lectures.

665 Producing (4)

Prereq: 563. Examination of function of producer in financing, organizing, scheduling, budgeting, managing, and securing distribution for a film.

692 Independent Study (1-5)

Prereq: AWP. Advanced individual creative or scholarly work in film. May be repeated.

691 Professionals Seminar (4)

Prereq: 563 or major. Presentation and discussion of thesis projects in progress. May be repeated.

790 Individual Production Problems (1-5)

Prereq: AWP. Individual production of motion picture. May be repeated.

791 Individual Readings (1-5)

Prereq: AWP. Readings and reports on works related to motion pictures. Reading list selected in consultation with faculty member. May be repeated.

7955 Film Studio Thesis (1-15)

Prereq: AWP.

795W Film Written Thesis (1-15)

Prereq: AWP.

School of Music

To begin a graduate program in music, you are required to have completed, with at least a 2.5 accumulative grade-point average, an undergraduate curriculum in music from an accredited institution offering an undergraduate degree equivalent to the requirements of the National Association of Schools of Music. Music education students not holding standard certification must earn Ohio certification.

All candidates should arrange a personal audition and interview. A taped audition is accepted only if a personal audition is difficult or impossible.

Applied majors (performance, performance-pedagogy) must demonstrate graduate-level performance proficiency. Performance-conducting majors must submit a videotape of their conducting and schedule a skill demonstration interview. Music education majors must submit a sample of their writing on a topic assigned by the music education faculty. Music therapy majors must present evidence of experience in working with children or adults with handicaps. Theory, history, and literature majors must submit a scholarly paper. Composition majors must submit scores, a statement of purpose, and, if possible, recorded tapes.

After admission has been granted, placement examinations are given to all entering graduate students during registration week of the first quarter of enrollment. You are required to take a proficiency test in theory and history and literature of music. The results of these placement tests are used in planning your course of study. Deficiencies in undergraduate preparation should be removed during the first year of graduate study.

You may apply for admission to a School of Music graduate program for any quarter. All application materials must be submitted 30 days prior to the quarter in which you plan to begin your graduate program. Typically, the school begins awarding financial aid on April 1 of each year for the next academic year; therefore, early application for financial aid is encouraged.

Master of Music Programs

General Requirements

Programs leading to the Master of Music degree, requiring a minimum of 45 credit hours of graduate work, are offered in applied music (performance; performance/pedagogy emphasis—piano, voice, strings, woodwinds; and performance/conducting emphasis—choral, orchestral, wind), theory, composition, music education, music history and literature, and music therapy. A thesis or its equivalent is required in all academic programs except music education, where a 48-quarter-hour (minimum) nonthesis option is available. Applied and music education majors are required to perform in an appropriate ensemble each quarter in residence and applied majors are required to present a public degree recital. In lieu of a thesis, majors in composition present compositions in a large form.

In addition to the 45 quarter hours required for the M.M., students in voice (performance) are required to demonstrate skill in German, French,

and Italian diction. Students in music history are required to demonstrate reading ability in at least one foreign language. An oral examination is required of each candidate. See the School of Music *Graduate Handbook* for specific requirements.

Music Education

The M.M. in music education provides an opportunity to pursue advanced practical and theoretical studies in the field of music education. Although the focus of the program is upon preparation to be a more skillful teacher, many options are possible, including preparation for music administration and supervision. The degree program prepares students for permanent certification and doctoral study leading to college teaching. The coursework is divided equally among music education and other areas such as music theory, music history, jazz studies, and applied music (including conducting). Some candidates take related coursework in business, educational administration, theater, or comparative arts.

Music Therapy

The M.M. in music therapy provides an opportunity to pursue advanced studies in research, teaching, clinical, and administrative skills. Music therapy is an interdisciplinary field that requires a strong background in music, music therapy practices, and the behavioral sciences. Coursework is designed to improve understanding in these areas of study, promote advanced clinical and research skill, and allow specialization in a cognate area of applied music or nonmusic study. The curriculum consists of a minimum of 46 quarter hours in music therapy core courses; music theory, history, and/or composition; and music and nonmusic electives.

Students with a baccalaureate degree in music in an area other than music therapy may choose the combined equivalency master's program in music therapy and will concurrently complete deficiency courses toward the RMT (Registered Music Therapist) while electing some graduate-level courses toward the master's degree. If you lack substantial undergraduate music requirements, you may be admitted as a special student to the equivalency-only program, a nondegree offering that enables you to meet MT-BC registration requirements with the American Music Therapy Association. Eligible equivalency students may take a limited number of graduate courses during equivalency study and, with permission, complete the graduate degree following a six-month internship (or equivalent) in music therapy. Additional nonmusic certification may be achieved during the course of study. AMTA Board Certification is obtained following successful completion of the national certification examination.

**Performance: Pedagogy Emphasis
(piano, string, voice, woodwind)**
**Performance: Conducting Emphasis
(choral, orchestral, wind)**

The M.M. in performance is designed for professionally oriented performers and studio and school music teachers who wish to pursue this curriculum as a terminal degree and for those who wish to use it as a foundation for doctoral study. The goal is to prepare graduate students, both technically and intellectually, for professional careers as performers or conductors. Acceptance into the Master of Music in performance is by audition only.

Within the area of performance, you may choose a Master of Music degree in performance with emphasis in pedagogy. Areas of concentration in this degree program are strings, woodwinds, voice, and piano. The goal of the pedagogy emphasis program is to prepare students for teaching in colleges, public schools, and private

studios. A greater emphasis is given to pedagogy and pedagogical techniques, including teaching methods and materials, than in the traditional performance curriculum. Students in piano also receive group and private piano instruction.

An audition is required on the major instrument for admission to these programs. It is advantageous to have previous experience on at least one other family instrument in woodwinds and strings.

The goal of the program in conducting is to further develop conducting skills for public school music teachers, college positions, or professional careers in conducting, and to prepare students for study at the doctoral level. Applicants must submit a videotape demonstrating conducting skills and, in a personal interview, perform on their major instrument and demonstrate sight-singing, aural skills, and keyboard facility.

**Theory, Composition, and History
and Literature**

The M.M. is offered in music theory, composition, and music history and literature. Although each degree program requires a minimum of 45 quarter hours of graduate work, a variety of course offerings enables you to design a program that suits your professional needs.

The M.M. in music theory and the M.M. in music history and literature require 45 credit hours and a written thesis. In addition, students in music history are required to demonstrate reading ability in at least one foreign language. The M.M. in composition requires a large-scale composition in lieu of the thesis. All degree programs in the theory-composition-music history and literature area require an oral examination of the degree candidate. Students applying for entrance into the Master of Music program in music theory or music history should submit an original scholarly paper on any topic within the discipline of the proposed major field of study.

Music Courses (MUS)

History and Literature

521 History of Musical Styles I (3)
History of music with survey of music literature to 1600.

522 History of Musical Styles II (3)
History of music with survey of music literature from 1600 to 1750.

523 History of Musical Styles III (3)
History of music with survey of music literature from 1750 to present.

524 Literature (3)
Literature of (A) choral music, (B) piano music, (C) chamber music, (D) orchestral music, (E) organ music, (F) opera music, (I) orchestral instruments, (L) band music. A.

527 Folk Music in the United States (3)
Introduction to selected types of folk music in U.S. *Scholten; Sp; Y.*

528 Jazz History (3)
Study of the African roots of jazz. Overview of solo and ensemble styles, with emphasis on blues, New Orleans, Chicago, swing, bop, cool, and free jazz to 1970. *Wetzel; W; Y.*

531 Ancient and Medieval Music (4)
Music as artistic and theoretical expression of antiquity and Middle Ages; history of musical styles to 1410. A.

532 Music of the Renaissance (4)
Musical styles and genera from Dunstable to Palestrina (ca. 1450–1600). A.

533 Music of the Baroque Period (4)
Music of age of concertato and basso continuo, musical styles, and genera from Monteverdi to J. S. Bach (ca. 1600–1750). A.

534 Music of the Classic Period (4)
Eighteenth century classicism for the Mannheim School through early Beethoven. A.

535 Music of the 19th Century (4)
Music as artistic expression of 19th-century romanticism. A.

536 Contemporary Music (4)
Music as artistic expression of our time. Various styles since ca. 1900. A.

537 Analysis of Music Notation (3)
Gregorian and Medieval modal notation. F; D.

538 Analysis of Music Notation (3)
Prereq: 537. Franconian and Ars Nova notation systems. W; D.

539 Analysis of Music Notation (3)
Prereq: 538. Continuation of 538. Sp; D.

620 Seminar in Theory and Music History and Literature (3, max 9)
Individual studies of problems in music history and theory. Methods of music research and use of music bibliography. *Wetzel; F; Y.*

Independent Study

600 Independent Study (1–15)

F, W, Sp, Su; Y.

695 Thesis (as recommended by dept) (1–6) Y.

Music Education

562L Teaching Instrumental Music in the Elementary and Middle School-Laboratory Band (1)

To prepare the prospective instrumental music educator for competence and adequacy in executing an ensemble music rehearsal at the elementary/middle school level. Items covered include conducting, personnel, and score preparation.

563 Instrumental Techniques and Materials (4)

Advanced techniques for high school and college instrumental groups. Literature and materials. Sp; Y.

564 Marching Band Techniques (3)

Techniques for preparation of high school and college marching band performance. Young; Sp; Y.

565 Choral Techniques and Materials (4)

Advanced techniques for high school and college vocal groups. Literature and materials. Jarjisan; Sp; Y.

566 Contemporary Elementary Music Education (4)

Advanced course in techniques and materials for elementary music teaching such as Orff and Kodaly. Scholten; F; Y.

566A Introduction to Orff Schulwerk (3)

Introduction to music, materials, instruments, and pedagogy used in Orff teaching. Scholten; W; A.

568 General Music in Junior High (4)

Advanced course in techniques and materials for junior music teaching such as team teaching, learning stations, and humanities. M. Butler; W; Y.

576 Workshops and Institutes (1–4)

(A) music clinic workshop, (B) elementary music workshop, (C) chamber music institute. May be repeated for credit, but credit may be applied to degree electives only once for each workshop. D.

581 Psychological Foundations of Music (3)

Basic study of acoustics, ear, and hearing. Psychological, sociological, and physiological processes involved in musical behavior. Codding; F; Y.

590 Graduate Seminar: Teaching Music in Higher Education (1)

Assists the graduate teaching assistant—especially one with little or no prior teaching background—in making a smooth transition into his or her teaching duties at the Ohio University School of Music. Butler; Reilly; F; Y.

670 Contemporary Trends in Music Education (4)

671 Advanced Topics in Music Education (4)

Various topics in music education (including various methods of measuring musical aptitude and achievement) and study of experimental research methodology. W; Y.

672 Advanced Topics in Music Education (4)

History and philosophy of American music education. Scholten; Sp; Y.

675 Introduction to Graduate Studies in Music Education (3)

Introduction to graduate study and research methods in music education. Scholten; F; Y.

677 Organization and Administration of School Music (3)

Administration and supervision of school music programs. Role of supervisor, consultant, director, or coordinator of music in public schools. Personnel, materials and equipment, finance, curriculum, in-service training, and community-school relationships. Sp; Y.

Music Therapy

580 Advanced Music Therapy Practicum (3)

Field experience with various clinical populations; supervision and leadership in field experience. F, W, Sp; Y.

583 Research in Music Therapy and Psychology of Music (3)

Introduction to graduate study and research, extensive review of psychology of music and music therapy literature from a research perspective, experience with on-campus research, research analysis and design including writing a research paper suitable for presentation or publication. F.

584 Clinical Practice in Music Therapy (3)

Review and analysis of music therapy techniques with various populations and assessment of their effectiveness; design and implementation of music therapy programs for various populations (alternatives and strategies); assessment with various populations; communication across various clinical disciplines in various settings.

585 Seminar in Music Therapy (3)

Current topics in music therapy, including national trends and problems in the field; administrative concerns in developing and enhancing music therapy programs; leadership in music therapy, including skills and strategies for effecting change at various levels; legislative activity and organizational activity. Sp.

694 Professional/Clinical Project (4)

Original, professional, or clinical demonstration project resulting in a written paper suitable for presentation or publication at a professional meeting or in a professional journal. Sp.

695 Thesis (4)

Original experimental research investigation suitable for presentation at research session of professional conference and/or publication in a research-oriented journal. Sp.

Performance

540 Voice (1–6)

Prereq: perm. F, W, Sp; Y.

541 Piano (1–6)

Prereq: perm. F, W, Sp; Y.

542 Harpsichord (1–6)

Prereq: perm. F, W, Sp; Y.

542A–D Stringed Instruments (1–6)

Prereq: perm. (a) violin, (b) viola, (c) violoncello, (d) double bass. F, W, Sp; Y.

543A–E Woodwind Instruments (1–6)

Prereq: perm. (a) flute, (b) oboe, (c) clarinet, (d) bassoon, (e) saxophone. F, W, Sp; Y.

544 A-EBrass Instruments (1–6)

Prereq: perm. (a) trumpet, (b) horn, (c) trombone, (d) euphonium, (e) tuba. F, W, Sp; Y.

545 Percussion Instruments (1–6)

Prereq: perm. Remonko; F, W, Sp; Y.

546 Organ (1–6)

Prereq: perm. F, W, Sp; Y.

550 Accompanying (1, max 3)

Basic problems in accompanying singers and instrumentalists—rehearsal techniques, ensemble, pedaling, balance, etc. May be repeated. W, Sp; Y.

551A Marching Band (2)

Prereq: audition. Suk; F; Y.

551B Wind Ensemble (2)

Prereq: audition. Climer; Y.

551C University Band (1)

Prereq: audition. Suk; Y.

551D Varsity Band (1)

Suk; W; Y.

551E Concert Band (1)

Prereq: audition. Climer; Y.

552A Symphony Orchestra (2)

Prereq: audition. Furumoto; Y.

552B Chamber Orchestra (1)

Prereq: audition. Y.

553A University Singers (2)

Prereq: audition. Jarjisan; Y.

553B Choral Union (1)

Prereq: audition. Jarjisan; Y.

553C Opera Theater (1–4)

Prereq: audition. Stephens; Y.

553D The Singing Men of Ohio (1)

Prereq: audition. Zook; Y.

553E Women's Chorale (1)

Prereq: audition. Wetzel; Y.

554 Chamber Music (1)

Prereq: perm. (A) string; (B) woodwind; (C) brass; (D) percussion; (E) contemporary; (F) piano; (G) vocal. Y.

555A Jazz Ensemble (1)

Prereq: audition. Bastin; Y.

555B Percussion Ensemble (1)

Prereq: audition. Remonko; Y.

555C Trombone Choir (1)

Prereq: perm. Y.

557 Solo Repertoire (1)

Prereq: perm. Representative selections from standard and 20th-century repertoire; problems of technique, interpretation, style, accompaniment, and ensemble. (A) string instruments; (B) woodwind instruments; (C) brass instruments; (D) vocal; (E) piano; (F) percussion.

557G Early Keyboard Repertoire, 1600-1750 (2)
A comprehensive study of the keyboard repertoire from 1600-1750, including major works of Baroque composers. *Barte; F; A.*

557K Classic and Romantic Piano Repertoire (2)
A comprehensive study of the keyboard repertoire from 1750-1900, including major works of classical and Romantic composers. *Syracuse; W; A.*

557L Twentieth Century Piano Repertoire (2)
Twentieth-century piano repertoire beginning with works from the Impressionistic Period and including major works of composers to the present. *Henry; Sp; A.*

558 Pedagogy (2)
Methods and materials of teaching fundamentals of instruments. Lecture, class performance, teaching demonstration, and library research. (A) string instruments; (B) woodwind instruments; (C) brass instruments; (D) vocal; (E) class piano; (F) percussion.

558G,H,I Piano Pedagogy (2)
Practical course aimed at providing creative teaching strategies for piano teacher. Teaching philosophies, objectives, and procedures discussed and applied to group, class, and private piano instruction. Includes teaching techniques for working with students of all ages and levels. May be repeated. *F, W, Sp; Y.*

558J Vocal Pedagogy Resource Survey (2)
Prereq: 558D. Overview of the learning process and pedagogical teaching styles. 20th-century materials and resources available in the field of vocal pedagogy are evaluated. *M. Stephens; Y.*

559A Advanced Instrumental Conducting (3)
Prereq: perm. Advanced reading and conducting of large instrumental works. *F; Y.*

559B Advanced Choral Conducting (3)
Prereq: perm. Advanced reading and conducting of large choral works. Standard and new works for public school and college groups. *Sp; Y.*

559C Applied Conducting (4)
Prereq: perm. Select, private instruction at the advanced level. Emphasis placed on refining the individual student's conducting ability and musicianship. Gestural study, score study, and score reading are part of the course. Repertoire for degree recitals provide the primary focus for study. *Cliner, Furumoto, Jarjisian; Y.*

570 Practicum in Music (1-2)
Prereq: perm.

572 Advanced Group Instruction in Functional Piano (2)

Prereq: piano classification 243. For pianists, emphasizing development of keyboard skills, harmonizing, transposing, sight reading, etc., that students will encounter as piano teachers, music educators, or music therapists. May be repeated. *Sp; Y.*

575B Italian Diction (1)
Prereq: perm.

575C German Diction (1)
Prereq: perm.

575D French Diction (1)
Prereq: perm.

577A Jazz Improvization I (2)
Learning and applying through improvization of the Ionian, Dorian, and Mixolydian modes, the ii-V7-I progression, and culminating with a final project utilizing the song form. *Bastin; W; Y.*

577B Jazz Improvization II (2)
Learning and applying through improvization the Whole Tone, Diminished and Blues scales, the Aeolian and Locrian modes, the ii-V7-I progression, and culminating with a final project utilizing Blues form. *Bastin; Sp; Y.*

579 Performance Preparation (2)
A practical course aimed at assisting students in developing strategies for preparing themselves physically and psychologically to achieve their maximum performance potential. *Berenson.*

697 Recital (1-2)
Prereq: perm. Full-length public recital. A recording of the degree recital will be filed in library. *F, W, Sp; Y.*

Theory and Composition

500 Introduction to Music Theory (3)
Prereq: nonmusic major. Introduction to music theory: pitch and rhythmic notation and chords. *Y.*

502A Styles I (3)
Analysis of Medieval and Renaissance music. *F; A.*

502B Styles II (3)
Analysis of post-Romantic music. *W; A.*

502C Styles III (3)
Analysis of 20th-century music. *Sp; A.*

503A Theory Pedagogy I (3)
Designed to meet needs of students who plan to teach theory at college level. Current materials and pedagogical approaches surveyed.

503B Theory Pedagogy II (3)
Prereq: 503A. Continuation of 503A. See 503A for description. *D.*

504A Analytical Techniques of Tonal Music I (3)
A survey of techniques employed in the analysis of music of the tonal repertoire. A variety of analytical tools will be employed to examine the rhythmic, melodic, harmonic, formal, and textural structures of a wide variety of tonal music. *Reilly; F; Y.*

504B Analytical Techniques of Tonal Music II (3)
Continuation of MUS 504A. *Reilly; W; Y.*

504C Techniques of Atonal Music (3)
A survey of the analytical techniques employed in the analysis of atonal music; emphasis will be placed on the use of extensions of twelve-tone and set theory as applied to this repertoire. *Reilly; Sp; Y.*

505A Jazz Theory I (3)
Prereq: keyboard. Harmonic vocabulary, notational systems, chord progressions. Structures, and techniques in traditional jazz.

505B Jazz Theory II (3)
Continuation of 505A. *D.*

507A Counterpoint I (3)
16th-century counterpoint: practices and styles; Lassus and Palestrina. *F; A.*

507B Counterpoint II (3)
18th-century counterpoint: invention, canon, fugue. *W; A.*

507C Counterpoint III (3)
Prereq: 507B. Continuation of 507B.

508 Composition, Nonmajor (3)
Prereq: non-composition major, perm. *Phillips; Y.*

509 Composition (3)
Prereq: composition major. *Phillips; Y.*

510B Electronic Music Composition (3)
Prereq: 413 or 413A. Instruction in the issues, aesthetics, and techniques of classical electronic music composition. *Phillips; F.*

513 Introduction: Electronic Music (2)
Introduction to electronic music covering basic concepts and providing a broad overview of current practices and trends on applying technology to musical ends. *F.*

514A Advanced Orchestration (2)
Problems in scoring original works for modern symphony orchestra. Satisfactory scores performed by Ohio University Symphony Orchestra. *Phillips; D.*

514B Advanced Orchestration (2)
Prereq: 514A. Continuation of 514A. *Phillips; D.*

514C Advanced Orchestration (2)
Prereq: 514B. Continuation of 514B. *Phillips; D.*

515 Microcomputer Applications in Music Production (3)
Basic concepts of digital FM synthesis and MIDI sequencing. Brief introduction to the use of microcomputers in music printing and other systems commonly used for electronic music production. *Phillips; W, Sp.*

516 Project in Electronic Music (3)
Prereq: 515. Techniques of studio operation and maintenance, multitrack recording, tape editing, and mixing as they apply to electronic music. *Phillips; F.*

516A Advanced Projects in Electronic Music (3)
Prereq: 516, approved project proposal. A project proposal must be submitted to and approved by the instructor prior to enrolling in this course. An electronic music composition will be produced for public performance. *Phillips; W.*

516B Advanced Recording Studio Techniques (4)
Prereq: 516. Instruction in operating a 16-track recording studio. Topics include advanced miking techniques, sound processing, mixing, and SMPTE time code synchronization on a 16-track recorder. *Phillips; Sp.*

517 Advanced Digital Synthesis (4)
Prereq: 515. Concepts of digital sound synthesis primarily using the Synclavier system. Topics include advanced FM synthesis, additive synthesis, sampling, sequencing, and SMPTE time code synchronization on the Synclavier. *Phillips; W.*

517A Advanced Digital Synthesis and Multitrack Projects (4)
Prereq: 517, approved project proposal. A project proposal must be submitted and approved by the instructor prior to enrolling in this course. Supervision and guidance for working on creative electronic projects using the Synclavier and the 16-track recording studio. *Phillips; F, W, Sp.*

610 Seminar in Music Theory (2)
Topics in music theory, including but not limited to issues in analysis, the history of music theory, cognition and perception, aesthetics as pertaining to theory, the music of individual composers, pedagogy, etc. Specific topics will be announced prior to each quarter the course is taught. *Reilly; D.*

School of Theater

The School of Theater offers programs leading to the Master of Fine Arts and Master of Arts degrees. To apply, you must have earned a baccalaureate degree from an accredited college or university and be able to demonstrate motivation and talent for the program of your choice. In addition, you should present a background of training that correlates with your professional goals. For unconditional admission, you must have a satisfactory academic record with strong indications of success in your chosen area and sufficient preparation to qualify for graduate courses to be included in the program. Any deficiencies must be made up by taking appropriate courses in addition to normal requirements.

Applicants for admission to one of the professional M.F.A. programs must demonstrate qualification by audition, submission of portfolio, interview, or other appropriate means before final approval is granted (see below). This requirement is in addition to the basic admission standards for entrance into the graduate program of the School of Theater.

It is expected that you will have a firm grounding in theater history and dramatic literature, as well as demonstrable proficiency in fundamental production techniques, or that these areas will be included in your graduate program.

Throughout the program, you are closely observed and counseled by the faculty. You are expected to show consistent progress toward improvement of those skills that the faculty deems necessary for entry into the profession. At the end of every quarter in residence, and in some programs also at midterm of each quarter in the initial year, a thorough evaluation is made. The faculty discuss with you particular areas of strength and weakness in your performance and how they may affect your professional potential.

If, in the judgment of the faculty, you fail to meet professional standards or to show improvement in necessary skills, you are placed on program probation for the following quarter. Normally this action occurs at the end of a quarter, and the probation is for the following quarter. However you may be placed on program probation at any time if the faculty deems it necessary. Written notice of this decision is provided, along with an explanation of the academic or artistic reasons for the decision. You are expected to make improvement immediately in the indicated areas.

At the end of the period of program probation, the area faculty, in consultation with the director of the School of Theater, takes one of three actions:

- 1** Removal of program probation; recommendation for continuation in the program.
- 2** Continued program probation for an additional quarter.
- 3** Denial of further enrollment.

If you are placed on program probation in the first five weeks of a quarter, the period of probation may extend until the end of that quarter. If you are placed on probation after the first five weeks of the quarter, the period of probation may extend until the end of the following quarter.

In no case will program probation continue for more than three consecutive quarters.

Students in the Professional Actor Training Program, the Professional Director Training Program, and the Production Design and Technology Program must begin their program of study in the fall quarter. Application materials for these programs must be received by April 1. Students in the other M.F.A. programs are encouraged to begin their program in the fall quarter and should observe the April 1 application deadline. An M.A. degree candidate may apply for admission for any quarter.

Applicants seeking financial aid in the form of graduate scholarships or graduate associateships for the following academic year should submit application materials to the School of Theater by March 1. If you wish to apply for financial aid in the form of work study and/or loans, contact the Office of Student Financial Aid and Scholarships. (See the Financial Aid section.)

Graduate candidates are required to participate each quarter in the production activities of the school as a supplement to and as an extension of their academic work. In addition, all graduate candidates are required to enroll for Lunchbag Theater Seminar each quarter of residence.

The production program of the school is conducted in two adjoining buildings on the Athens campus. The first is the newly renovated Kantner Hall, housing a comfortable and well-equipped proscenium theater; four small studio-classroom theaters; scenery, props, and costume laboratories; and related facilities. A second mainstage theater, incorporating a thrust stage and capable of modification for use in various theatrical forms, is located in the Radio-Television Communication Building next door. Significant repertory production opportunities are available through the university's Monomoy Theater on Cape Cod (Chatham, Massachusetts).

Visiting artists from the professional theater are brought to the campus in all areas of the school to augment the teaching of the faculty. Full-term residencies, shorter-term (two or more weeks) residencies, master classes, and audition opportunities with theater professionals are supported by visiting artist funds. Recent visiting artists have included prominent actors, directors, designers, playwrights, administrators, and teachers from England and Europe, as well as the North American commercial and LORT theaters.

M.A. in Theater History and Criticism

The M.A. in theater history and criticism is a one-year program requiring 45 credit hours and a minimum of three quarters of residency. You may choose either to write a thesis or to take a comprehensive examination on all coursework. If you wish to pursue the thesis program in place of the comprehensive examination program, an additional quarter of residency is expected. A quarter of internship with a professional theater as a dramaturg or literary advisor may substitute for the comprehensive examination or thesis.

The purpose of the degree is to prepare students for scholarship, research or new play development, whether associated with an academic institution or a professional theater. In the context of a professionally oriented School of Theater, students survey theater history and criticism, use current research methodologies, and study specific areas in depth. Students are required to engage in independent research and to convey their ideas orally and in writing. The degree is an excellent basis for introductory teaching in higher education, work as a dramaturg, or further study toward a terminal degree in theater.

This program is intended for a number of different kinds of students. Those interested in dramaturgy are able to apply their coursework, which also includes playwriting and directing, to School of Theater productions. An internship at a professional theater is especially valuable in this case.

The program also is for students who want the first graduate degree in preparation for a terminal degree, whether M.F.A. or Ph.D. The academic rigor and broad scope of this degree can be a valuable testing ground for students to determine their subsequent educational goals.

Finally, this degree is for foreign students who are able to study in the U.S. only long enough to earn an M.A. degree. In this case, students gain a solid, thorough education in Western theater history and criticism, as well as scholarly and pedagogical methodologies.

Degree Requirements

Total credits required: 45
Residency: 3 quarters minimum
Capstone experience: Thesis, comprehensive examination, or internship with completion of dramaturgy casebook

Specific Course Requirements

Intro to Grad Study (THAR 500)	4 cr
Production Practicum (THAR 505 or 535)	2 cr
Dramaturgy or Production Practicum (THAR 505, 535, or 575P)	2 cr
Readings in Theater Studies (THAR 570), 3 quarters	3 cr
Dramatic Criticism (THAR 575, 576, 675)	8 cr
Dramatic Literature (THAR 573, 670, 770, 771, 772, 773, 774, 775, 776, 777, CA 770, 771, 772, 773, 774, 775, 776)	8 cr
Independent Study in Theater History (preparation for comprehensive examination)	6 cr
Total Required Courses	36 cr
Electives	9 cr

Courses in directing and playwriting are strongly encouraged for students interested in dramaturgy. Other electives may include design, dance, music, literature, languages, etc., with the advice and consent of your advisor.

Admission is based on a 3.0 g.p.a. in undergraduate work, three letters of recommendation, and a sample critical or research paper. A personal interview is recommended.

Sample Program

Fall
Introduction to Graduate Study
Practicum in Design and Technical Theater
Seminar in Theater History
Greek Theater and Drama or Restoration and 18th-Century Theater or Seminar in Dramatic Writing (Playwriting)
Readings in Theater Studies

Winter
Practicum in Dramaturgy
Dramatic Criticism I or Dramatic Criticism II
Roman and Medieval Theater or Baroque European Theater or Seminar in Theater History
Research Techniques for the Theater
Elective

Spring
Seminar in Theater History
Nineteenth Century European Theater or Modern Theater or First Principles of Directing
Readings in Theater Studies
Comprehensive Examination

Additional Quarter (optional)

Thesis or internship

Practical Work: two practicum assignments in production work, e.g., acting, technical production, or public relations crew work
Electives: classes in directing, theatrical design, dance, music, literature, languages, etc., with advice and consent of your advisor
Thesis/Comprehensive Exam/Internship

M.A. in Theater

The Master of Arts degree in Theater is a one-year program that provides the student with a broad-based graduate-level education in all areas of theater: historic, dramatic, and practical. Each student is required to undertake a strong base in theater history and drama, with additional coursework in playwriting, directing, and design. The student is able to apply this work to the practice of School of Theater productions. Masters' students demonstrate their proficiency through a comprehensive examination, written thesis, performance project, or, for exceptional

students, internship at a professional theater. All work takes place in the context of a professionally oriented School of Theater, and coursework is with M.F.A. students led by professionally active faculty.

Providing a diverse education, this program enables graduate students and those entering the professional theater to broaden future goals and hone skills. The program is especially appropriate for individuals whose undergraduate major was in an area other than theater/drama, or for those who are returning to theater studies in mid-career. International students who wish to gain a knowledge of Western theater studies and practice are also encouraged to apply.

Admission is based on a 3.0 g.p.a. in undergraduate work, three letters of recommendation, and a writing sample. Admission to an area of specialization is required for entry. A personal interview is recommended.

Specific Course Requirements

Three quarters of residency including: THAR 500	4
Theater History/Drama	12
Playwriting	4
Directing*	4
Design*	4
Practicum	5
Exam/Thesis/Project/Intern	4
Specialization Area**	8
TOTAL	45

For the thesis or internship option, an additional quarter of registration is required.

*Certain courses require permission for enrollment.

**Specialization areas include theater history/drama, playwriting, directing, and design.

M.F.A. Programs

The M.F.A.s offered by the School of Theater are professional degrees. The Professional Actor Training Program and the Professional Director Training Program each require a minimum of 135 credit hours over a nine-quarter (three-year) residency period. The M.F.A. in production design and technology is a professional degree and normally requires a minimum of 135 credit hours over a nine-quarter period, but may also be, with approval of the faculty, a six-quarter program with a 90-credit-hour requirement. The M.F.A. in playwriting is a professional degree and covers 90 credit hours of study. The theater general M.F.A. program requires a minimum of 90 credit hours.

Professional Actor Training Program

The Professional Actor Training Program (PATP) prepares advanced students for a career as a professional actor. Led by a faculty of working theater practitioners, the school offers an intensive three-year practical program. The training is dedicated to the goal of producing well rounded, skillful actors who are as comfortable exploring the mysteries of the inner life as they are in meeting the external demands of technique—actors at home in any theatrical environment, regardless of content, style, or period. Particular emphasis is placed on conditioning the actor's vocal and physical instruments. Development of a reliable process for approaching and rehearsing a role makes up a vital part of the work. The program also includes career studies aimed at fostering an understanding of the entertainment business.

Immersion in the acting, voice, and movement studios constitutes the bulk of the first two years. Additional coursework includes text analysis, dramatic literature, theater history, special areas of movement, and audition technique.

The Acting Studio. The first year of training features a back-to-basics curriculum concentrating on the authentic use of self, the reality of

doing, and living truthfully within imaginary circumstances. The classical repertory forms the basis for the second year of work, with an emphasis on the Greeks, Shakespeare, Moliere, and Restoration comedy.

Internship. The third year is devoted exclusively to an internship at the Cincinnati Playhouse in the Park.

Performance Opportunities. The first 10 weeks are dedicated to the diagnosis of individual needs. In succeeding quarters, performance opportunities abound. Every actor performs a practicum role each quarter, either in the School of Theater's mainstage offerings or in its many laboratory productions. Special stress is placed on the emerging ability to synthesize the lessons learned in the studio with the practical realities of his or her casting.

Summer. Some actors are afforded the opportunity to participate in a full summer of performance activities at Monomy Theater on Cape Cod. Operated in conjunction with the Ohio University School of Theater, Monomy has for 40 years been a memorable experience for students and public alike.

Assessment. There is continual communication among the PATP faculty members, aimed at monitoring and advancing the training of each student. Quarterly evaluations are scheduled to inform students of their progress and outline specific areas of strength and weakness. Students showing consistent growth are invited by the faculty to continue in the succeeding year of training.

Admission. Admission to the program is by interview and audition. The PATP is open to a limited number of talented, mature, and motivated students. Minimum requirements for the M.F.A. include 78 credit hours in acting courses, 10 credits in acting practicum, 2 credits in technical or management practicum, 2 credits in introduction to graduate studies, 12 credits in history/criticism/literature, 12 credits in thesis production, and 15 credits in internship. Independent studies and/or electives comprise the remaining requirements.

Sample Program

First Year
Fall Quarter
 Introduction to Graduate Studies
 Acting I
 Voice and Speech I
 Movement I
 Improvisation
 Technical Practicum

Winter Quarter
 Acting II
 Movement II
 Voice and Speech II
 Audition Techniques
 Practicum in Acting

Spring Quarter
 Acting III
 Voice and Speech III
 Movement III
 Text Analysis
 Practicum in Acting

Second Year
Fall Quarter
 Acting IV
 Voice and Speech IV
 Movement IV
 Dramatic Literature or Theater History
 Practicum in Acting

Winter Quarter
 Acting V
 Voice and Speech V
 Movement V
 Elective
 Practicum in Acting

Spring Quarter
 Acting VI
 Voice and Speech VI
 Movement VI
 Dramatic Literature or Theater History
 Practicum in Acting

Third Year
Fall Quarter
 Independent Studies in Acting
 Internship in Acting

Winter Quarter
 Independent Studies in Acting
 Internship in Acting

Spring Quarter
 Independent Studies in Acting
 Thesis Performance

Professional Director Training Program

The Professional Director Training Program is designed to train and prepare directors for a career in the professional theater. It embodies the faculty's belief that a classical foundation better prepares a director to work in any style or medium. The program admits no more than two candidates each year. Admission is granted as a result of admission to the university and a combination of recommendations by those familiar with the applicant's work and an interview with the program head.

During the three-year course of study, directors will develop and practice their craft in a variety of ways, ranging from scene work to directing fully supported mainstage productions. The primary focus of the first year is for the director to become familiar working with the elements and people involved in producing theater. Given satisfactory progress, the second year has a focus on the application of work done during the first year through a variety of laboratory and other directing experiences. Given continued satisfactory progress, the third year is the culmination of the previous two and serves as an entry into the theater. This may be accomplished by directing a fully supported thesis production.

Requirements for a M.F.A. in directing are 135 hours. Detailed requirements will be given to the student upon enrollment. There is a quarterly evaluation of each student. Students exhibiting consistent growth and preparation for a career in the professional theater will be invited to return for the next year of training.

Sample Graduate Directing Program

First Year
Fall Quarter
 Introduction to Graduate Collaboration
 S20A Directing I
 S10A Acting I
 S17A Voice I
 Movement I
 Scene Design
 Production Practicum

Winter Quarter
 S20B Directing II/Performance Collaboration
 S10B Acting II
 S17B Voice II
 Costume Design
 Directing Practicum/Realism Project

Spring Quarter
 S20C Directing III/New Play Collaboration
 S10C Acting III
 S17C Voice III
 Playwright's Workshop
 Lighting Design
 Directing Practicum/Realism Project

Second Year
Fall Quarter
 620A Directing IV
 610A Acting IV
 Directing Practicum/New Play Project
 Dramatic Criticism I
 Director/Designer

Winter Quarter
 620B Directing V
 610A Acting V
 Directing Practicum/Verse Project
 Dramatic Criticism II
 Advanced Lighting Technique

Spring Quarter
 610C Directing VI/New Play Collaboration
 Seminar in Directing/Thesis Preparation
 Directing Practicum/Verse Project
 Directing Theories
 610C Acting

Third Year
 Directing VII,VIII,IX
 Thesis Production
 Plus
 Management Seminar
 Playwriting/Screenwriting
 Intro to Film
 Directing for Camera

Professional Playwriting Program

The Professional Playwriting Program seeks to train playwrights who will, become artists who contribute to the culture. Playwrights are craftspeople as well as artists. The basic and advanced principles of the craft can be learned through earnest study of our dramatic literary heritage and intensive practical application of the craft.

The M.F.A. is earned through the completion of a minimum of 90 credit hours of study. The program of study may include 135 credit hours of coursework (three years) where appropriate. The third year may include an internship with a professional theater company. Coursework includes theater history, criticism, a continuing dramatic writing seminar and workshop, a variety of electives, and a course in the collaborative process. The degree is awarded for the completion of a body of work that is ready for production and for significant progress in the development of dramatic writing skills.

Script Development. Scripts are developed at several levels. Assignments and early drafts are developed in the Seminar in Dramatic Writing, where students examine and employ the principles and advanced theories of dramatic writing. Later drafts are presented in the Playwrights Workshop, where guest audiences are invited when appropriate. Script development and presentation are a component of a second section of the Playwrights Workshop, which focuses on playwright and director collaboration. New work is presented in department-produced workshop readings, and production-ready plays are produced in the school's Lab Series.

For the Seabury Quinn, Jr., Playwrights Festival, theater professionals are invited to the university to respond to the work of OU playwrights. Playwrights experience public readings, audience feedback, professional response, and individual mentoring. Note: Plays begun before enrollment in the School of Theater will not be developed in the Playwriting Program.

Minimum Writing and Production Expectations. In the first year, playwrights are likely to develop a monologue play, a one-act play, and a later draft full-length play. Whether the one-act play or the full-length play is eligible for a rehearsed reading in the Annual Playwrights Festival. This work is rewritten, based on festival feedback. Projects at various levels of development will receive readings. A new piece

may be created for the Playwright and Directors Collaborative Workshop. First-year playwrights are encouraged to apply for Lab Series Production.

In the second year, students may finish the first-year full-length play, develop another full-length play and a draft of a full-length screenplay or a completed short screenplay. Students who have not had an original work produced must participate in the production of their work in the Lab Series or an equivalent venue. Second-year students serve as the producers of the Playwrights Festival, where their works are read.

In the optional third year, students may work as interns for a professional theater and/or assist a professional playwright. Our circle of theater is always expanding; we now have internship contracts with Off-Broadway theaters, regional theaters, and production companies. Third-year students are expected to produce a full-length play in the Lab Series or complete an equivalent experience and to develop a full-length play or screenplay.

New work may be submitted for production on the School of Theater's mainstage.

As a graduation requirement, each student must turn in a bound copy of collected works developed at Ohio University.

Note: Scripts must be judged by the playwriting faculty as ready for production development to receive production approval.

Enrollment. Minimum standards for acceptance include a 3.0 g.p.a. for undergraduate work and the submission of two sample manuscripts in dramatic form. Admission is based on evaluation of the applicant's writing sample, resume, goals statement, and recommendations from references. A visit to the university and an interview are encouraged.

Sample Program

- Introduction to Graduate Studies
- Practicum
- Playwrights Workshop
- Seminar in Dramatic Writing
- Independent Studies

Theater History and Criticism sequence to be selected from the following:

- Dramatic Criticism I & 2
- Greek Theater and Drama
- Roman and Medieval Drama
- Renaissance Theater and Drama
- Restoration and 18th Century
- Baroque European Theater
- 19th-Century European
- Modern Drama
- American Theater and Drama
- Independent Study

Electives

In consultation with program advisor, students may take courses in theater or outside courses to further support their major area. Courses in screenwriting are encouraged.

Professional Program in Production Design and Technology

The M.F.A. in production design and technology is a three-year program that strives to prepare students for professional careers. For designers, the first year of the program deals primarily with unleashing the imagination and examining the process of how to translate the written word into meaningful visual images. The second and third years allow for refining skills and increasing specialization in an area of concentration with an emphasis on professional portfolio development. Technology students are involved in production, craft, and skill classes each quarter of residence. The development of fine craft and technical skills is essential, but the focus is on the development of top-notch managerial skills.

Participation in a specified production activity each quarter is required. These assignments relate directly to the students' area of concentration. At specified times they will consist of assuming senior staff positions on the main stage, such as designer, technical director or cutter/drafter.

The thesis for all students consists of a main stage design (or equivalent technical assignment) and a formal exit portfolio review. For scenery and

costume designers, this simulates the United Scenic Artists Union interview/exam. In all cases, portfolios are expected to meet prevailing professional standards for job placement in the field.

At least one-quarter of the third year is expected to consist of an internship at a major LORT or commercial theater in the United States or abroad (usually London). Students are expected to attend at least one national convention every year. Qualified design students are invited to participate in the Annual National Portfolio Review at Lincoln Center. Students are strongly encouraged to spend their summers and winter breaks working in leading professional theaters.

Total credit-hour requirements are based on a normal load of 15–18 credit hours per academic quarter for nine quarters of residency. Minimum course requirements for the three-year MFA include 60 credits of core courses and at least 75 credits of specific area requirements for a total of 135 credits. Any course may be waived at entry in recognition of previous academic or professional experience. For exceptional students with significant prior experience, a maximum of 45 credits may be waived at entry.

Admission to the program requires either a B.A. or B.F.A. and is based on an evaluation of your portfolio, resume, and recommendations, as well as a review of your academic qualifications for graduate work. A visit to inspect the facilities and an interview with the design staff is encouraged.

Program Requirements

Core Courses

Introduction to Graduate Studies

Practicum in Design and/or Technical Production (18 cr.)

Lighting Design

Scene Design

Historical Bases of Design I and II

Thesis (3 cr.)

Internship (15 cr.)

Scene Design

Scene Design (8 additional cr.)

Advanced Scene Techniques (8 cr.)

Studies in Scene Design (12 cr.)

Advanced Costume Design

History of Costume

Lighting Design or Advanced Lighting Techniques

Model Construction for the Scene Designer

Drafting for the Stage

Scene Painting

Studio Art (8 cr.)

Practicum in Design and/or Technical Production (8 additional cr.)

Photography for the Theater

AutoCAD

Directed Electives (7 cr.).

Costume Design

Advanced Costume Design and Studies in Costume Design (24 cr.)

Costume History

Costume Crafts Construction

Props Construction and Organization for the Stage

Fabric Painting

Costume Period Patterning

Advanced Studies in Clothing

Studio Art

Scene Design (4 additional cr.)

Internship (6 additional cr.)

Directed Electives (3 cr.).

Scenic Technology (Props and/or Scenic Artist)

Scene Design (8 additional cr.)

Props Construction and Organization for the Stage

Advanced Scenic Techniques or Studies in Scene Design

History of Costume

Model Construction for the Scene Designer

Drafting for the Stage

Costume Crafts Construction

Scene Painting

AutoCAD or Computer Graphics

Photography for the Theater

Directed electives (35 cr.).

Costume Technology

Advanced Costume Design

History of Costume (8 cr.)

Costume Crafts Construction

Props Construction and Organization for the Stage

Fabric Painting

Costume Period Patterning

Advanced Studies in Clothing

Advanced Studies in Textiles

Studio Art and/or Scene Painting

Internship (6 additional cr.)

Directed electives (19 cr.).

Lighting Design

Stage Management

Lighting Design

Electrics

Advanced Lighting Techniques

Advanced Lighting Studies

Advanced Costume Design

Scene Design (4 additional cr.)

Advanced Scene Techniques

Practicum in Design and/or Technical Production (8 additional cr.)

AutoCAD

Photography for the Theater

Directed Instruction

Directed Electives (21 cr.).

Technical Direction

Technical Direction

Advanced Technical Studies

Electrics, Scene Design (4 additional cr.)

Props Construction and Organization for the Stage

Practicum in Design and/or Technical Production (8 additional cr.)

Drafting for the Stage

Costume Crafts Construction

Scene Painting

Welding, Rigging

AutoCAD

Photography for the Theater

Directed Electives (15 cr.)

Sound Design

Stage Management

Electrics

Practicum in Design and/or Technical Production (8 additional cr.)

Drafting

Sound Design I

Sound Production

AutoCAD

Scene Design Collaboration

Film Topic Seminar

History of Musical Styles I, II, III

Audio and Video Production

Directed Instruction

Directed Electives (21 cr.)

Theater Courses (THAR)

090 Lunchbag Theater Seminar Series (0)

Seminar and discussion about trends in theater scholarship, production, and performance techniques. May be repeated. *F, W, Sp.*

500 Introduction to Graduate Study (2)

Prereq: grad theater major. Orientation to graduate theater study and professional theater. *F, Y.*

502 Theater Management (4)

Management in performing arts. 3 lec. *Fraze; W, Y.*

505 Practicum in Theater Management (2-4)

Prereq: perm. Supervised lab practice in problems of theater publicity, finance, ticket office, and house management. *F, W, Sp, Su, Y.*

510A Acting Technique I (6)

Prereq: grad acting major. Intensive studio training emphasizing actor's work and on text through exercises, monologues, and scene work. *F, Y.*

510B Acting Technique II (6)

Prereq: 510A. Continuation of 510A. See 510A for description. *W, Y.*

510C Acting Technique III (6)

Prereq: 510B. Continuation of 510A-B. See 510A for description. *Sp, Y.*

515 Practicum in Acting (2-4)

Prereq: perm. Supervised lab practice in rehearsal and performance. *F, W, Sp, Su, Y.*

516A Basic Movement for the Actor (3)

Prereq: grad acting major. A combination of mind-body-voice work methods addressing movement demands for the actor. Methods used are Todd/Sweigard, Feldenkrais, Selver, Linklater, Corporeal, and Laban Dance. Once there is an understanding of the instrument, the work focuses on clarity of expression, presence, and the energy of acting. *F, Y.*

516B Neutral Mask Mime (J. Lecoq Technique) (3)

Prereq: 516A. Use of the Neutral/Universal Full mask. The actor is given various tasks to accomplish with focus on eliminating the intrusion of actor tension and on simplifying the physical communication through clear and distinct images. *W, Y.*

516C Physical Acting I (3)

Prereq: 516B. Work that allows for the transition between pure movement classes and the specific responsibilities of the actor. Actors are involved in task-oriented exercises offering an opportunity for movement to be observed for clarity and simplicity. Observation addresses personal physicality; rhythms and energy identify intrusive personal idiosyncrasies. Through repetition, the actor achieves a more complete metamorphosis and understanding of characterization; monologue work used extensively. *Sp, Y.*

517A Voice and Speech for the Actor (3)

Prereq: grad acting major. Intensive training to develop actor's basic voice and speech skills. Introduction to and proficiency in perception of physical sensations pertaining to voice and speech. *Parrotti; F, Y.*

517B Voice and Speech for the Actor (3)

Prereq: 517A. Continuation of 517A. See 517A for description. *Parrotti; W, Y.*

517C Voice and Speech for the Actor (3)

Prereq: 517B. Continuation of 517A-B. See 517A for description. *Parrotti; Sp, Y.*

520A First Principles of Directing (4)

Prereq: grad directing major. First inquiry into nonactor-related prerehearsal considerations, text selection, analysis, space, and environment in relation to concept and design. *Sherman; F, Y.*

520B Audition Technique (2-6)

Prereq: 520A. Scene work with actors using concept and project explored during previous quarter. *W, Y.*

520C Directing Project I (6)

Prereq: 520B. Basic rehearsal techniques and procedures. *Sp, Y.*

525 Practicum in Directing (2-4)

Prereq: perm. Practical experience as directorial staff member for production in public performance or as director for lab theater experience. *F, W, Sp, Su, Y.*

526 Stage Management (3)

Theoretical course in techniques and methods of professional stage management. *F, Y.*

530 Technical Direction (4)

Role and responsibilities of technical director. *St. Lawrence; W, Y.*

531A Lighting Design (4)

Light as element of design. *St. Lawrence; F, Y.*

531B Electrics I (4)

Covers elements of technical production practice related to lighting: electrical practice for the stage, the physics/optics of contemporary theatrical equipment, and principles related to color and light as an element of production. *St. Lawrence; W, Y.*

532 Advanced Costume Design (4)

Prereq: 53B. Problems and projects in theatrical costume design emphasizing character, conceptualization, collaboration, and research skills. *Cole; W, Y.*

534 Scene Design (4)

Scene design styles of premodern drama theory and practices. Repeatable to 12 credits. *F, Y.*

535 Practicum in Design and/or Technical Production (2-6)

Prereq: perm. Practical application of design and technical theory. *F, W, Sp, Su, Y.*

536C Welding for the Theater (2)

An introduction to the materials and techniques of welding and metal fabrication for the scenic technician.

536F Properties Construction and Organization for the Stage (4)

An introduction to the organizational skills and craft techniques required to hold a job in a professional prop shop.

537 Studies in Makeup (3)

Advanced problems in theatrical makeup design and execution. *Cole; F, W, Y.*

538A Historical Bases of Design—Part I (4)

Prereq: major. Research techniques and resources in history, the arts, and period "style" from antiquity to the early Renaissance in western civilizations for theatrical production.

538B Historical Bases of Design—Part II (4)

Prereq: major. A continuation of 538A, covering the period from the high Renaissance to the present.

545 OV5T Practicum (1-6)

Prereq: perm. Supervised practice and experimentation in the company operation of a community theater performance project. May be repeated for credit. *Su.*

550 Playwrights Workshop (3, max 9)

Prereq: perm, prior approval, acceptance of scripts. Practical workshop study and production of plays written by students. *W, Sp, Y.*

570 Readings in Theater Studies (1-2)

Reading and discussion of current research in theater history, theory, and criticism.

573 Seminar in Theater and Drama:

Selected Topics (4)

Provides an in-depth examination of a selected area of theater history and drama. (May be repeated for credit.)

575 Dramatic Criticism I (4)

Principles of dramatic criticism from Aristotle to modern theater. 3 lec. *F, Y.*

575P Practicum in Dramaturgy (2-6)

Prereq: permission. Practical experience as a dramaturgy in School of Theater productions, including historical, textual, and bibliographical research, as well as audience outreach.

576 Dramatic Criticism II (4)

Prereq: 575. Modern dramatic criticism from time of Ibsen to present. 3 lec. *W, Y.*

605 Practicum in Theater Management (2-4)

Prereq: perm. Supervised lab practice in problems of theater publicity, finance, ticket office, and house management. *F, W, Sp, Su, Y.*

606 Individual Projects in Performance Management (6)

Working with performance management projects selected prior to course. Orientation may be production or research. *Fraze; F, W, Sp, Su, Y.*

610A Advanced Problems in Acting and Performance (6)

Prereq: 510C. Continued intensive studio training centering on audition material, characterization, and special problems such as period plays and experimentation. *F, Y.*

610B Advanced Problems in Acting and Performance (6)

Prereq: 610A. Continuation of 610A. See 610A for description. *W, Y.*

610C Advanced Problems in Acting and Performance (6)

Prereq: 610B. Continuation of 610A-B. See 610A for description. *Fraze; Sp, Y.*

615 Practicum in Acting (2-4)

Prereq: perm. Supervised lab practice in rehearsal and public performance of roles. *F, W, Sp, Su, Y.*

616A Advanced Movement for Actors (3)

Prereq: 516C. Continuation of 516B; focus on classical comedy. *Gabriel; F, Y.*

616B Advanced Movement for Actors (3)

Prereq: 616A. Use of extremely expressive masks to extend the actor into characterization. The work demands believable support externally and internally for grotesque persona. Clarifies strong sense of flexibility, imagination, line, and strength. *Gabriel; W, Y.*

616C Advanced Movement for Actors (3)

Prereq: 616B. Historical information leading to the development and decline of the commedia dell'arte characters, basic scenarios, and improvisation. An expansion of the character masks both physically and vocally leading to characterization appropriate to the spirit of commedia dell'arte. *Gabriel; Sp, Y.*

617A Advanced Voice and Speech for the Actor (3)

Prereq: 517C. In-depth extension of work started in 517ABC. Advanced techniques to refine further and develop use of voice and speech as instrument for characterization. *Parrotti; F, Y.*

617B Advanced Voice and Speech for the Actor (3)

Prereq: 617A. Continuation of 617A. See 617A for description. *Parrotti; W; Y.*

617C Advanced Voice and Speech for the Actor (3)

Prereq: 617B. Continuation of 617A-B. See 617A for description. *Parrotti; Sp; Y.*

620A Individual Projects in Directing (6)

Prereq: 520C. Working with full-length text in class or lab theater/playwrights workshop presentation. Emphasis on scripted materials in forms and modes previously unfamiliar to student. *F; Y.*

620B Improvisational Techniques in Directing (2-4)

Prereq: 2nd-yr grad director. Working with nonscripted material under leadership of master teacher. *W; Y.*

620C Advanced Individual Projects (6)

Prereq: 620A. Working with full-length text in class or lab theater/playwright's workshop presentation. Emphasis on new areas of examination. *Sp; Y.*

621 Directors on Directing (4)

Theoretical and historical readings and discussion. *W; Y.*

625 Practicum in Directing (2-4)

Prereq: perm. Practical experiences in directing actors in special projects outside of class, i.e., lab theater, playwright's workshop, or other approved assignments. *F; W, Sp, Su; Y.*

626 Practicum in Stage Management (2-4)

Prereq: 526. Practical experience in production stage management. *F; W, Sp, Su; Y.*

630 Advanced Technical Direction (4)

Prereq: 530. *Sp; Y.*

631 Advanced Lighting Techniques (4)

Prereq: 531. *W; Y.*

632 Advanced Costume Design (4)

Prereq: 532. Advanced problems and projects in theater and film costume design emphasizing style, conceptualization, and collaboration. *Sp; Y.*

633 Touring: Production Design (12)

Prereq: grad production design major. Practical course to familiarize advanced design and technical production students with solution of problems inherent in touring theatrical productions. *F; W, Sp, Su; Y.*

634 Advanced Scene Techniques (4)

Prereq: 534. *W; Y.*

635 Practicum in Design and/or Technical Production (2-6)

Prereq: perm. Practical application of design or technical theory in planning and execution of university production in second year of training. *F; W, Sp, Su; Y.*

636A Model Construction for the Scene Designer (4)

Prereq: perm. An introduction to the materials and techniques of model construction for the stage. Repeatable to eight credits. *Belden; W; Y.*

636B Drafting for the Stage (4)

Fundamental and advanced problems of drafting for the stage. The course is geared to the set designer, the lighting designer, and the technical director. Repeatable to eight credits. *Belden; Sp; Y.*

636C Costume Crafts Construction (4)

An introduction to materials and techniques used in theatrical crafts construction. Casting materials, mask making, and soft sculpture techniques will be emphasized. *Cole; F; Y.*

636D Costume Period Patterning (4)

Prereq: 535. An introduction to period patterning techniques. *Cole; W; Y.*

636E Scene Painting (1-4)

Introduction to painting techniques, materials, and color problems for the stage. *W; A-even.*

636P Costume Painting Techniques (1-4)

Prereq: 535. Exploration of theatrical costume painting techniques using stenciling, stamping, direct dye painting, photo silk-screen dying, aging, and distressing methodologies. *Sp.*

637A Sound Design I (4)

Prereq: 637B. An introduction to sound design for the stage. Resources and principles for the theatrical sound designer. *St. Lawrence; Sp; A-odd.*

637B Sound Production (4)

An introduction to sound production, techniques, and principles for the stage. *St. Lawrence; Sp; A-even.*

639 Independent Studies in Design and/or Technical Theater (1-6)

F; W, Sp, Su; Y.

670 Seminar in Theater History (4)

May be repeated as topic changes. *Quinn; Sp; A.*

675 Seminar in Dramatic Criticism (4)

May be repeated as topic changes. *Quinn; Sp; A.*

690 Directed Instruction (1-3, max 9)

Supervised practice in instructing. *F; W, Sp; Y.*

695 Thesis (1-12)

F; W, Sp; Y.

702 Theater Administration (4)

Organization and administration of educational, community, and resident theater. *Fraze; W; Y.*

705 Practicum in Theater Management (24)

Prereq: 505 or 605, 702. Specialized lab projects relating to management of Ohio University Theater. *F; W, Sp, Su; Y.*

708 Internship in Performing Arts Management (12-18)

Student is assigned to management area of a professional performing arts organization and performs duties and responsibilities under the tutelage of a trained working professional. Combines theoretical study with practical application of concepts of theater management and administration. *Dorfman; D.*

709 Independent Studies in Theater Management (1-6)

F; W, Sp, Su; Y.

713 Internship in Acting (6-15)

Prereq: 510A,B,C; 610A,B,C. Residence with professional theatrical company. *F; W, Sp; Y.*

715 Practicum in Acting (4-6)

Prereq: 510A,B,C; 610A,B,C. Performance of leading roles in major productions. *F; W, Sp; Y.*

718 Thesis Performance in Acting (12)

Prereq: 3rd-yr grad. Preparation, rehearsal, and performance of a role for public performance. *D.*

719 Independent Studies in Acting (1-6)

Prereq: acting major. *F; W, Sp; Y.*

723 Internship in Directing (6-15)

Prereq: 520A,B,C; 620A,B,C. Residence with professional theatrical company. *F; W, Sp; Y.*

726 Advanced Practicum in Stage Management (4-8)

Prereq: perm. Supervised production experience involving major mainstage responsibility. *D.*

728 Thesis Production for Directors (12)

Prereq: 520A,B,C; 620A,B,C. Preparation, rehearsal, and presentation of fully mounted play for public performance. *F; W, Sp; Y.*

729 Independent Studies in Directing (1-6)

F; W, Sp; Y.

730 Advanced Technical Studies (4, max 8)

F; W, Sp; Y.

731 Advanced Lighting Studies (4)

Prereq: 631. Theory and practice. *F; W, Sp; Y.*

732 Studies in Costume Design (4, max 12)

Prereq: 632. *Cole; F; W, Sp; Y.*

733 Internship in Design or Technical Production (6-15)

Prereq: 2nd- or 3rd-yr grad production design major. Residence with professional theatrical company. *F; W, Sp, Su; Y.*

734 Studies in Scene Design (4, max 12)

Prereq: perm. *F; W, Sp; Y.*

735 Practicum in Design and/or Technical Production (2-12)

Prereq: 3rd-yr production design major. Practical application of design or technical theory in planning and execution of university production in third year of training. *F; W, Sp; Y.*

738 Seminar in Production Design (4-12)

Preparation, planning, and presentation of a portfolio dealing with two or more areas of theatrical design and/or technical production. *F; W, Sp, Su; Y.*

750 Seminar in Dramatic Writing (4-8, max 16)

Quinn; F; W, Sp; Y.

759 Independent Studies in Playwriting (1-6)

F; W, Sp; Y.

763 Internship for Stage Managers (6-15)

Supervised work and observation experience at a professional theater company or in association with a professional production of theater, opera, or dance. *D.*

770 Greek Theater and Drama (4)

First in series of eight seminars covering in-depth theater and drama of western world from prehistoric times to contemporary. 3 lec. *F; Y.*

771 Roman and Medieval Theater (4)

W; Y.

772 Renaissance Theater and Drama (4)

Sp; Y.

773 Restoration and 18th-Century Theater (4)

Quinn; D.

774 Baroque European Theater (4)

Quinn; F; Y.

775 19th-Century European Theater (4)

Quinn; W; Y.

776 Modern Theater (4)

Quinn; Sp; Y.

777 American Theater and Drama (4)

Study of significant movements and major playwrights of the American theater, with an emphasis on the 20th century. *F.*

779 Independent Studies in History and Criticism (1-6)

F; W, Sp; Y.

College of Health and Human Services

Grosvenor Hall

Gary Neiman
Dean

Lee Cibrowski
Associate Dean

Margaret Goodwin
Assistant Dean for
Student Services

The mission of the College of Health and Human Services is to promote an environment within which students may pursue undergraduate and graduate degrees in health and human services fields. Programs within the college combine academic coursework with practical field and clinical experiences, providing students with basic knowledge, intellectual skills, and professional capabilities that enable graduates to think and act positively and creatively in the face of changing societal and human conditions.

Graduate Programs

Interdisciplinary Certificate Programs

Gerontology

Health Policy

School of Health Sciences

Master of Health Administration
Concentrations in acute care administration and long-term care administration

Detailed information concerning graduate programs and possible financial support is available from the graduate coordinator, School of Health Sciences, Ohio University, The Tower, Athens OH 45701-2979.

School of Hearing and Speech Sciences

Master of Arts in Hearing and Speech Sciences

Doctor of Philosophy

Concentrations for both degrees in audiology and speech language-pathology

Detailed information concerning graduate programs and possible financial support is available from the graduate coordinator, School of Hearing and Speech Sciences, Ohio University, Lindley Hall, Athens OH 45701-2979.

School of Human and Consumer Sciences

Master of Science in Human and Consumer Sciences
Concentrations in early childhood education, family studies, international and community nutrition, and nutrition science

Detailed information concerning graduate programs and possible financial support is available from the graduate coordinator, School of Human and Consumer Sciences, Ohio University, Tupper Hall, Athens OH 45701-2979.

School of Physical Therapy

Master of Physical Therapy

Detailed information concerning the graduate program and possible financial support is available from the admissions committee chair, School of Physical Therapy, Ohio University, Convocation Center, Athens OH 45701-2979.

School of Recreation and Sport Sciences

Master of Science in Physical Education
Concentrations in athletic administration, athletic training, physical education pedagogy, recreation studies, and sport physiology and adult fitness

Master of Science in Physiology of Exercise

Master of Sports Administration

Detailed information concerning graduate programs and possible financial support is available from the graduate coordinator, School of Recreation and Sport Sciences, Ohio University, Research and Technology Center, Athens OH 45701-2979.

Certificate Programs

Gerontology Certificate

The gerontology certificate program allows graduate students in any major program within the university to gain knowledge and skills related to working with the elderly. The Gerontology Certificate is also appropriate for students planning to continue doctoral preparation in gerontology or related areas.

The certificate program requires completion of at least 23 credit hours from the following list of courses: an approved practicum (HLTH 650); Aging and Health (HLTH 613); at least one course in the psychosocial area; and one course in the biological/health-related area. You and your advisor choose elective courses and a practicum placement in consultation with the coordinator of the gerontology certificate program.

Eligibility to Apply

The gerontology certificate program accepts students in two categories: those who have been admitted to an advanced degree program at Ohio University and those who possess a bachelor's or an advanced degree but who are not currently in a degree program at Ohio University.

If you are not currently seeking an advanced degree from Ohio University, you must meet the following requirements to be considered for unconditional admission to the graduate certificate program:

- 1** Earned bachelor's or advanced degree from an accredited college or university.
- 2** Minimum undergraduate grade-point average (g.p.a.) of 3.0 on a 4.0 scale on last 90 quarter hours or last 60 semester hours (undergraduates) or an earned graduate or professional degree.
- 3** Satisfactory Graduate Record Examination (GRE) or Graduate Management Admission (GMAT) scores if you do not possess a graduate or professional degree.

Application

Degree-seeking graduate student.

If you are currently enrolled as a graduate student seeking an advanced degree at Ohio University, obtain an Application for Update of Program(s) from Graduate Student Services, any dean's office, or the coordinator of the Gerontology Certificate Program. After completing the application and obtaining your advisor's and the program coordinator's signature, turn the form in to Graduate Student Services. Each quarter on your DARS (Degree Audit Report System) you will be able to track your progress in the certificate program.

Nondegree student. To apply for the certificate program as a nondegree student, submit the following materials:

- 1** Two copies of the application for graduate admission, indicating admission as a nondegree student in the Gerontology Certificate Program.
- 2** Graduate Record Examination (GRE) or Graduate Management Admission Test (GMAT) scores. This requirement is waived for applicants who have already earned a graduate or professional degree.
- 3** Official transcript(s) from each post-secondary institution attended. (You do not, however, have to send transcripts of any studies at Ohio University.)
- 4** An essay identifying your career goals and objectives.
- 5** A resume of your professional work experience.
- 6** Three letters of recommendation, using the forms found in the back of this catalog, from people who are qualified to evaluate your capability for graduate study.

Submit your completed application, GRE or GMAT scores, nondegree student application fee, and transcripts to the Office of Graduate Student Services, Ohio University, Wilson Hall, Athens, OH 45701-2979.

The essay, resume and letters of recommendation should be sent directly to the gerontology certificate coordinator, School of Recreation and Sport Sciences, Ohio University, Research and Technology Center, Athens, OH 45701-2979.

Required Courses

HLTH 613 Aging and Health (4)

HLTH 650 Practicum (1-5)

Plus one course from the psychosocial group and at least one course from the biological/health-related group.

Psychosocial Group

EDCE 638 Gerontological Counseling (3)

HCCF 562F The Aged Family (3)

HCCF 580 Death and Dying (4)

HCCF 689 Self, Aging, and Society (4)

PHIL 580 Thinking About Death (4)

PSY 674 Psychological Aspects of Aging (4)

Biological/Health-Related Group

HLTH 605 Public Health and Aging (4)

HLTH 640 Administration of Long-Term Care Facilities (4)

HSS 600 Communicatively Impaired Elderly Patient: Clinical Assessment and Intervention (4)

HS 511 Special Topics (1-4)

PESS 521 Principles of Aging and Physical Activity (4)

Degree-seeking student who complete the program are awarded the gerontology certificate upon graduation, and a notation of the certificate is recorded on the student's transcript. Nondegree students receive a notation of the certificate on their transcripts upon completion of certificate requirements. Upon applying for graduation (for degree-seeking students) or completion of the certificate requirements (for nondegree students), you must contact the program coordinator for verification of completion and the awarding of the certificate. For more information on course offerings or other concerns, contact the coordinator of the gerontology certificate program.

Health Policy Certificate

The multidisciplinary graduate certificate in health policy addresses the educational needs of graduate students and professionals in health care and related industries who have already earned a bachelor's or graduate degree. You might be interested in completing the Health Policy Certificate if you work or plan to work in business, government, health sciences, hearing and speech sciences, medicine, nursing, nutrition, political science, physical therapy, psychology, or social work.

The health care industry is currently undergoing radical modifications in order to provide services to the general population that are fair, humane, and cost efficient. The academic requirements for the certificate are not only timely but essential to individuals who will influence policy decisions in this vital area.

Eligibility to Apply

The Health Policy Certificate Program accepts students in two categories: those who have been admitted to an advanced degree program at Ohio University and those who possess a bachelor's or advanced degree but are not currently in a degree program at Ohio University.

If you are not currently seeking an advanced degree from Ohio University, you must meet the following requirements to be considered for unconditional admission to the graduate certificate program:

- 1 Earned bachelor's or advanced degree from an accredited college or university
- 2 Minimum undergraduate grade-point average (g.p.a.) of 3.0 on a 4.0 scale on last 90 quarter hours or last 60 semester hours (undergraduates) or an earned graduate or professional degree
- 3 Satisfactory Graduate Record Examination (GRE) or Graduate Management Admission (GMAT) scores if you do not possess a graduate or professional degree.

Application

Degree-seeking graduate student. If you are currently enrolled as a graduate student seeking an advanced degree at Ohio University, obtain an Application for Update of Program(s) from Graduate Student Services, any dean's office, or the coordinator of the Health Policy Certificate Program. After completing the application and obtaining your advisor's and the program coordinator's signature, turn the form in to Graduate Student Services. Each quarter on your DARS (Degree Audit Report System) you will be able to track your progress in the certificate program.

Nondegree student. To apply for the certificate program as a nondegree student, submit the following materials:

- 1 Two copies of the application for graduate admission, indicating admission as a nondegree student in the Health Policy Certificate Program.
- 2 Graduate Record Examination (GRE) or Graduate Management Admission Test (GMAT) scores. This requirement is waived for applicants who have already earned a graduate or professional degree.
- 3 Official transcript(s) from each post-secondary institution attended. (You do not, however, have to send transcripts of any studies at Ohio University.)
- 4 An essay identifying your career goals and objectives.
- 5 A resume of your professional work experience.
- 6 Three letters of recommendation, using the forms found in the back of this catalog, from people who are qualified to evaluate your capability for graduate study.

Submit your completed application, GRE or GMAT scores, nondegree student application fee, and transcripts to the Office of Graduate Student Services, Ohio University, Wilson Hall, Athens, OH 45701-2979.

The essay, resume and letters of recommendation should be sent directly to the health policy certificate coordinator, School of Health Sciences, Ohio University, The Tower, Athens, OH 45701-2979.

Program Requirements

You are required to complete a minimum of 21 credit hours from the following list of courses. All students are required to enroll in the core courses. You and your advisor choose elective courses.

- Required Core Courses**
- HLTH 608 Health Policy (4)
 - HLTH 622 Health Care Reimbursement (4)
- Select one of the following:
- POLS 510 Public Policy Analysis (5) **or**
 - POLS 515 The American Presidency (5) **or**
 - POLS 540 The Politics of Developing Areas (5) **or**
 - POLS 555 International Law (5) **or**
 - POLS 586 Public Budgeting (5)

- Elective Courses**
- At least 8 hours must be completed.
- ECON 513 Economics of the Environment (5)
 - ECON 515 Economics of Health Care (5)
 - ECON 520 Labor Economics (5)
 - HLTH 691 Seminar (4)
 - HLTH 693 Special Topics Seminar (1-3)
 - INCO 530 Communication and Campaign (5)
 - JOUR 512 Ethics, Mass Media and Society (3)

- May select one course from the following:**
- EDCE 762 Legal and Ethical Aspects of Counseling (4)
 - ISE 522 Seminar on Occupational Safety and Health (3)
 - PT 644 Legal and Ethical Issues (2)

If you are a degree-seeking student, you are awarded the Health Policy Certificate upon your graduation if you have completed the certificate requirements, and a notation of the certificate will be recorded on your transcript. If you are a nondegree student, a notation of the certificate is recorded on your transcript upon completion of certificate requirements. Upon applying for graduation (for degree-seeking students) or completion of the certificate requirements (for nondegree students), you must contact the program coordinator for verification of completion and the awarding of the certificate. For more information on course offerings or other concerns, contact the coordinator of the health policy certificate program.

School of Health Sciences

The School of Health Sciences offers a graduate program leading to the Master of Health Administration (M.H.A.) degree with concentrations in acute care administration and long-term care administration. The Ohio Board of Examiners of Nursing Home Administrators has approved the long-term care administration concentration as meeting the academic and experiential prerequisites for admission to the licensure examination.

To be awarded the Master of Health Administration degree, you must earn 74 quarter hours, including a quarter-long internship. The maximum time allowed between the date that you first initiate graduate study toward the M.H.A. and the date that you complete the requirements for the degree is seven calendar years. Full-time students typically complete the program in one calendar year plus one quarter (five quarters). You may transfer a maximum of 12 quarter hours of graduate credit from an accredited university providing the credit is designated graduate credit at the institution where it was taken, is letter-graded B or better, was earned in the past five years, and is approved by your advisor. Credit for courses taken by correspondence cannot be accepted toward the required minimum hours.

Eligibility to Apply

You must meet the following requirements to be considered for unconditional admission to the School of Health Sciences graduate program in health administration:

- 1 Earned bachelor's degree from an accredited college or university
- 2 Minimum overall undergraduate grade-point average (g.p.a.) of 3.0 on a 4.0 scale on last 90 quarter hours or last 60 semester hours
- 3 Satisfactory Graduate Record Examination (GRE) or Graduate Management Admission Test (GMAT) scores

If you do not meet the above standards, you may be admitted on a conditional basis and informed of the conditions you must meet for unconditional acceptance. Conditions may or may not be taken for graduate credit. If you are admitted on a conditional basis, you are not eligible for financial assistance.

Application

The following materials must be received before your application can be considered for admission:

- 1 Application found in back of this catalog (in duplicate).
- 2 Graduate Record Examination (GRE) or Graduate Management Admission Test (GMAT) scores.
- 3 Official transcript(s) from each post-secondary institution attended. (You do not need to submit transcripts of coursework completed at Ohio University.)
- 4 An essay identifying your career goals and objectives.
- 5 A resume of your professional work experience.
- 6 Three letters of recommendation, using the forms found in the back of this catalog, from people who are qualified to evaluate your capability for graduate study.

Submit your completed application, GRE scores, transcripts, and application fee to the Office of Graduate Student Services, Ohio University, Wilson Hall, Athens OH 45701-2979.

The essay, resume, and letters of recommendation should be sent directly to the graduate coordinator, School of Health Sciences, The Tower, Ohio University, Athens OH 45701-2979.

Full-time students are admitted only for fall quarter. You must complete the application process by June 1 at the latest; it is recommended, however, that applications for both admission and financial aid for the following year be received by April 15. International students must also present TOEFL scores. Financial assistance, such as associateships, are available.

Part-time students are admitted for any quarter. You must complete the application process by June 1 for fall quarter; November 1 for winter quarter, and February 1 for spring quarter.

The curriculum listed in this catalog is likely to change beginning in the 2000-2001 academic year. These changes are being made so that the program will meet the accreditation standards established by the Accrediting Commission for Education in Health Services Administration (ACEHSA). The program is currently a candidate for accreditation through ACEHSA.

Requirements

Foundation Courses Required for All Majors

ACCT 501	Financial Accounting (4)
HLTH 603	Administration of Health Organizations (4)
HLTH 620	Bioethics in Health Care (4)
HLTH 621	Health Care Finance (4)
HLTH 630	Epidemiology in Health Planning (4)
HLTH 635	Human Resource Management Within Health Care (4)
HLTH 691	Seminar (4)
HLTH 698	Program Evaluation and Assessment in Health Care (5)
MGT 500	Management (4)
PSY 520	Elementary Statistics (5)

Concentration Requirements

Acute Care Administration	
HLTH 608	Health Policy (4)
HLTH 612	Management Applications in Health Care (4)
HLTH 622	Health Care Reimbursement (4)
HLTH 623	Management in Acute Care Facilities (4)
HLTH 692	Comprehensive Health Planning (4)
HLTH 699	Internship (12)
Long-Term Care Administration	
HLTH 612	Management Applications in Health Care (4)
HLTH 613	Aging & Health (4)
HLTH 622	Health Care Reimbursement (4)
HLTH 640	Administration of Long-Term Care Facilities (4)
HLTH 692	Comprehensive Health Planning (4)
HLTH 699	Internship (12)

Courses

Health Sciences (HLTH)

S10 Health Issues: U.S. Underserved Populations (4)

In-depth analysis of critical health issues germane to underserved populations in the United States. Emphasis on those groups suffering the most profound consequences of health problems and disease.

S12 International Health Programming (4)

Addresses diverse, rapidly changing health problems in developing countries while exploring roles of community health professionals. Surveys program interventions and solutions that are available or under development.

S18A Instructional Experiences (1-15)

Prereq: perm. Supervised practice in organizing and teaching activities in college and health related settings.

S19 Health Education for the Elementary School (4)

Application of principles of curriculum development, identification of appropriate concepts and practices, and use of teaching methods and resources at elementary school level.

S27 Health of Women (4)

Health needs and concerns of women within the physical, mental-emotional, and social dimensions of functioning are examined. Emphasis on women as health care and product consumers.

S30 Worksite Health Promotion (4)

Examination of worksite health promotion programs. Guidelines for development of health promotion programs in corporate settings discussed.

S9S School Health Problems (5)

Prereq: major/minor. Organization and administration of school health programs including school and community relationships.

600 Guided Independent Study (1-2, max 2)

Prereq: perm. Selected areas of study with written report based on research.

603 Administration of Health Organizations (4)

Prereq: MGT 500. Structure, organization, and function of contemporary health care delivery systems with emphasis on managerial concepts and issues such as control, adaptability, and accountability.

605 Public Health and Aging (4)

Critical assessment of the social, behavioral, and health research on the aging population with a concern for improving the elderly's quality of life.

607 Health Promotion and Health Behavior (4)

Theory and application of health promotion/education planning, implementation, and evaluation by health professions in a variety of settings. Emphasis on research related to determinants of health behavior, plus strategies and techniques used by professionals to foster human health.

608 Health Policy (4)

Focuses upon the development of public policy in the health care arena. Integrates political institutions and levels of government in terms of health policy development and implementation.

611 Special Problems (1-6)

Prereq: perm. Individual research and experimentation of professional issues. Identifies pertinent problems and plans effective attack toward potential solution.

612 Management Applications in Health Care (4)

Prereq: 603, MGT 500. Provides students with an opportunity for integrating classroom learning with the problems of the practice environment. Focuses on the application of administrative skills and concepts in terms of solving problems within health care organizations and systems.

613 Aging and Health (4)

Theories of aging involving changes in structure and performance presented. Emphasis on normal aging changes, positive mental health and aging, health promotion and maintenance of wellness, and community health.

620 Bioethics in Health Care (4)

Examines the dominant ethical theories and applicable principles with respect to the current significant clinical and managerial issues in health care.

621 Health Care Finance (4)

Prereq: ACCT 501. Explores financial administration processes within the various delivery systems and permits construction of the many financial reports.

622 Health Care Reimbursement (4)

Examines each of the payment systems in effect within each of the major groups of health care delivery systems, e.g., hospitals, nursing homes, home health programs, and so forth.

623 Management in Acute Care Facilities (4)

Prereq: MGT 500. Examines the administrative problems that are unique to the delivery of health care in acute care systems. Primary focus is on hospital administration.

624 Community Health Programs (4)

Institutional framework and activities of various agencies promoting and maintaining health of people of community, state, and nation.

630 Epidemiology in Health Planning (4)

Constructs rational basis for setting priorities and allocating scarce health care resources. Examines ways in which methodologically sound health statistics can be introduced into practical arena of planning health services. Covers natural history of disease, classification of disease, levels of prevention, measurement of morbidity and mortality, causal inference, sources of health care data, description of epidemiology, and application of epidemiology to disease and injury.

635 Human Resource Management Within Health Care (4)

Practical aspects of human resource management within various health care settings. Helps prepare students to handle human resource management and development issues.

640 Administration of Long-Term Care Facilities (4)

Overview of basic operational components and general administrative functions encountered in the management of nursing homes and other long-term care facilities.

650 Practicum (1-5, max 5)

Prereq: perm. Supervised work experience in various aspects of administration and operation of health and health related programs.

690 Independent Study (1-6, max 6)

Prereq: perm. Advanced individual creative and scholarly work in health services administration and closely related fields.

691 Seminar (4)

Prereq: major/minor. Research methods and investigation in health and health care systems. Topics and problems focus on the application of quantitative methods from the perspective of the health services manager attempting to maximize efficiency and effectiveness.

692 Comprehensive Health Planning (4)

Prereq: 630, 691. Designed to give students an overview of the process of health services planning. Explores community and health care program specific needs assessment, planning design, business scenarios, decision analysis, feasibility studies, implementation strategies and evaluation methods.

693 Special Topics Seminars (1-3, max 5)

Selected topics not covered in regular offerings in health administration and closely related fields.

697 Thesis (1-5, max 8)

Application of principles and practices to selected problems of study in the field.

698 Program Evaluation and Assessment in Health Care (5)

Prereq: PSY 520. Introduces students to the activities of collecting, analyzing, and interpreting information so that they understand the program evaluation process. Includes a study of the resources needed to make assessments of and determine the need for, implementation of, and effectiveness/efficiency of intervention efforts in improving health care services.

699 Administrative Internship (12)

Application of skills and principles of health administration within selected institutions or agencies facilitated in this residency program.

Industrial Hygiene Courses (IH)

S00 Industrial Hygiene Sampling and Analysis (5)

Lectures and lab to introduce field sampling and lab instrumentation and analytical methods common to industrial hygiene. Students are required to interpret readings, analyze samples, and prepare appropriate reports.

S01 Hazardous Materials in the Workplace (4)

Lectures on gases, vapors, dusts, liquids, and solids and their physical and chemical characteristics. Emphasis on sampling, evaluation, and control methods. Technical reports required, including design requirements as specified by regulatory agencies.

S05 Ventilation for Contaminant Control (4)

Designed to impart a working knowledge of the principles, methods, and practices of controlling worker exposure to hazardous concentrations of air contaminants and to present logical methods of design, evaluation, and maintenance of such systems.

S10 Physical Hazards: Evaluation and Control (4)

Designed to provide a functional knowledge of methods used to evaluate and control noise, vibration, heat, light, and other factors affecting the health and well-being of the worker.

515 Introduction to Radiological Health: Evaluation and Control (5)

Introduction and overview of health effects of various sources of radiation including sources, evaluation, safety, and control factors.

520 Hazardous Material: Management and Control (4)

Lectures on gases, vapors, dusts, liquids, and solids and their physical and chemical properties. Emphasis upon evaluation and control methods. Develop controls for specific cases and present them in technical reports.

School of Hearing and Speech Sciences

The School of Hearing and Speech Sciences provides academic study in speech-language pathology, audiology, speech science, and combinations of these areas for students wishing to pursue a clinical, research, and/or teaching career at the master's or doctoral level. The academic programs in speech-language pathology and audiology are accredited by the American Board of Examiners of the American Speech Language and Hearing Association.

School facilities are located in Lindley Hall on the historic College Green. Facilities include the Ohio University Speech and Hearing Clinic, research and teaching laboratories, classroom and seminar rooms, and a graduate student lounge. By Fall 2001, a \$24 million building that will house the entire College of Health and Human Services will be completed. This will include the audiology and speech-language pathology programs and a state-of-the-art speech and hearing clinic.

The clinical program provides a variety of experiences both on and off campus, culminating in a full-time externship experience for master's students. On campus, clients are provided remedial and diagnostic services through the campus clinic. The clinic contains eight therapy rooms, four diagnostic and conference rooms, resource materials and equipment, and a complete closed-circuit television arrangement for use in observation and student supervision.

The audiology clinic houses sound-treated evaluation suites and equipment for behavioral and electrophysiological assessment of hearing and balance. The hearing-aid dispensing program provides students with hands-on experience in the evaluation and fitting of the latest in digital and programmable hearing aids.

Off-campus clinical programs are carried out in regional clinics, a developmental disability center, hospitals, rehabilitation centers, Head Start settings, private practice audiological settings, nursing homes, and public school settings.

On- and off-campus clinical supervision is carried out by the faculty and staff of the school and adjunct clinical supervisors.

Many master's and all doctoral students participate in the ongoing research activities of the faculty; this participation frequently results in papers delivered at state and national conventions, as well as master's theses and doctoral dissertations. Integrated within both the clinical and research training of students is the use of a computer lab to develop various clinical, research, and augmentative proficiencies required of practicing speech and hearing professionals. Demonstration of such proficiency is a requirement for the master's and doctoral degrees.

Master of Arts in Hearing and Speech Sciences (M.A.H.S.S.)

The School of Hearing and Speech Sciences offers a graduate degree in speech-language pathology or audiology. The programs are designed to lead to professional certification in either area.

To be awarded the M.A.H.S.S., you must earn a minimum of 91 quarter hours. Depending on one's background, additional coursework may be necessary to be eligible for professional certification. The final requirement for graduation is passing the National Teacher's Examination in Speech-Language Pathology or Audiology.

Students may elect a thesis option to obtain research experience. A maximum of eight thesis hours may fulfill HSS

elective hours. It is recommended that students declare the thesis option by their third quarter of study to allow sufficient time to complete the project.

The clinical practicum requirement for each quarter culminates in a full-time off-campus clinical externship. Externships, available throughout the United States and Canada, are typically arranged by individual students contingent upon the approval of the clinical director. You must complete 350 clinical hours in accordance with American Speech Language and Hearing Association (ASHA) standards to obtain your degree and professional certification.

The maximum time allowed between the date that you first initiate graduate study toward the M.A.H.S.S. and the date that you complete the requirements for the degree is seven calendar years. You may transfer a maximum of 12 quarter hours of graduate credit from an accredited university, providing the credit to be transferred has been designated graduate credit at the institution where taken, is letter graded B or better, was earned in the past five years, is applicable toward an advanced degree at the institution where taken, and is earned in courses taught by members of that institution's graduate faculty. Credit for courses taken by correspondence cannot be accepted toward the required minimum hours.

Eligibility to Apply

You must meet the following requirements to be considered for unconditional admission to the School of Hearing and Speech Sciences in either speech-language pathology or audiology:

- 1** Earned bachelor's degree, preferably in hearing and speech sciences or communication disorders, from an accredited college or university.
- 2** Completion of core undergraduate courses: anatomy/physiology of speech and hearing, basic audiology, language development, phonetics, and speech and hearing science.
- 3** Minimum overall undergraduate grade-point average (g.p.a.) of 3.0 on a 4.0 scale.
- 4** Satisfactory Graduate Record Examination (GRE) scores.

If you do not meet the above standards, you may be admitted on a conditional basis and informed of the conditions you must meet before being accepted unconditionally. These courses may or may not apply toward your degree. If you are admitted on a conditional basis, you are not eligible for financial assistance.

Application

The following materials must be received by March 1 for you to be considered for admission:

1 Application found in back of this catalog (in duplicate).

2 Graduate Record Examination (GRE) scores.

3 If you are not an Ohio University student, official transcripts from each postsecondary institution attended. (You do not need to submit transcripts of coursework completed at Ohio University.)

4 A resume of your professional work experience.

5 Three letters of recommendation, using the forms found in the back of this catalog, from people who are qualified to evaluate your capability for graduate study.

6 A supplemental information form, available from the school.

Submit your completed application, GRE scores, transcripts, and application fee to the Office of Graduate Student Services, Ohio University, Wilson Hall, Athens OH 45701-2979.

The resume, supplemental information form, and letters of recommendation should be sent directly to the graduate coordinator, School of Hearing and Speech Sciences, Ohio University, 201 Lindley Hall, Athens OH 45701-2979.

Students are admitted only for fall quarter; you must complete the application process by **March 1**. International students having English as a second language also must present TOEFL scores and an informal tape-recorded speech sample with the application. Full and partial associateships are available, as well as tuition scholarships.

Audiology Program Requirements

Courses in sign language, language disorders, and aural rehabilitation are required if not previously taken.

The 91-quarter-hour program, which is planned by you and your advisor, must include the following required courses:

HSS 580	Advanced Manual Communication (4)
HSS 601	Introduction to Graduate Study (4)
HSS 603	Neurophysiology of Speech and Language (4)
HSS 635A	Audiology Practicum (18)
HSS 636	Clinical Externship (3)
HSS 654	Calibration Instrumentation (4)
HSS 661	Psychological Aspects of Hearing Impairment (4)
HHS 662	Advanced Aural Rehabilitation (4)
HHS 663	Pediatric/Educational Audiology (4)
HHS 664	Industrial Audiology & Hearing Conservation (4)
HHS 667	Advanced Hearing Science (4)
HHS 673A	Audiological Assessment Differential Diagnosis I (5)
HHS 673B	Audiological Assessment Differential Diagnosis II (5)
HHS 674A	Hearing Aids (5)
HHS 674B	Hearing Aid Selection (5)
HSS 675A	Electrophysiological Measures (5)
HSS 685	Balance Function Assessment (5)
Graduate-level basic statistics course (e.g., EDCI 720, PSY 520, PSY 621)	

Speech-Language Pathology Requirements

Courses in sign language, language disorders, and aural rehabilitation are required, if not previously taken.

The 91-quarter-hour program, which is planned by you and your advisor, must include the following required courses:

HSS 601	Introduction to Graduate Study (4)
HSS 603	Neurophysiology of Speech and Language (4)
HSS 613	Developmental & Disordered Phonology (4)
HSS 623	Advanced Diagnostic Procedures in Speech & Language Disorders (4)
HSS 635	Practicum in Diagnosis and Therapy (variable)
HSS 636	Clinical Externship (3)
HSS 652	Experimental Phonetics I (4)

The remaining coursework is determined by your undergraduate preparation and professional goals. This coursework may include child language disorders, adult

language disorders, motor speech disorders, voice disorders, fluency disorders, augmentative communication, dysphagia, multicultural issues, and computer applications. Coursework in related disciplines also may be taken.

Doctoral Program

The Doctor of Philosophy (Ph.D.) degree offered by the School of Hearing and Speech Sciences emphasizes the academic disciplines of research and teaching. The student's competence, ability to work independently, and to write creatively are established by academic coursework, personal study, and evidence of research. Specialized skills consistent with personal career aspirations are emphasized.

Faculty members in speech-language pathology conduct research in neurogenic communication disorders, phonology, the aging voice, acoustics and speech perception, craniofacial anomalies, language disorders and reading, multicultural issues, dysphagia, stuttering, service delivery, early intervention, and computer applications. In audiology, research includes otoacoustic emissions, middle ear reflectance, and central auditory processing. The departments of psychology, linguistics, and special education offer coursework in cognition, psycholinguistics, child development, aging, neuropsychology, memory, applied linguistics, developmental disabilities, statistics, and counseling.

To be awarded the doctoral degree, you must earn a minimum of 150 quarter hours of graduate credit beyond the bachelor's degree, of which 24 hours will be dissertation credit. A minimum of 54 quarter hours must be earned in hearing and speech sciences, along with two minors of 15 quarter hours each. One minor must be completed outside the school. The remaining hours may be distributed among the categories of special interest. You plan your academic program with your advisor. However, the final program plan is subject to the approval of your academic guidance committee. Following the satisfactory completion of the comprehensive

examination, you devote the remainder of your academic effort to your dissertation.

The maximum time allowed between the date when you first initiate graduate study toward the Ph.D., as determined by the School of Hearing and Speech Sciences, and the date when you complete the requirements for the degree, is seven calendar years.

Eligibility to Apply

You must meet the following requirements to be considered for unconditional admission to the doctoral program of the School of Hearing and Speech Sciences:

- 1** Earned master's degree, preferably in hearing and speech sciences or communication disorders, from an accredited college or university.
- 2** Coursework in the areas of phonetics, speech and hearing science, language development, anatomy and physiology of speech and hearing, and basic audiology.
- 3** Minimum overall grade-point average (g.p.a.) of 3.0 on a 4.0 scale.
- 4** Satisfactory Graduate Record Examination (GRE) scores.

Application

The following materials must be received before your application can be considered for admission:

- 1** Application found in back of this catalog (submitted in duplicate).
- 2** Graduate Record Examination (GRE) scores.
- 3** If you are not an Ohio University student, official transcripts from each post-secondary institution attended. (You do not need to submit transcripts of coursework completed at Ohio University.)
- 4** A brief essay on future career aspirations.

5 A resume of your professional work experience, including any clinical experience you may have.

6 Three letters of recommendation using the forms found in the back of this catalog from people who are qualified to evaluate your capability for graduate study.

Submit your completed application, GRE scores, transcripts, and application fee to the Office of Graduate Student Services, Ohio University, Wilson Hall, Athens OH 45701-2979.

The essay, resume, and letters of recommendation should be sent directly to the graduate coordinator, School of Hearing and Speech Sciences, 201 Lindley Hall, Ohio University, Athens OH 45701-2979.

It is recommended that applications for both admission and financial aid for the following year (fall quarter) be received by March 1. The application deadline for winter quarter is November 1; for spring quarter, February 1. International students having English as a second language also must present TOEFL scores and an informal tape-recorded speech sample with the application. You are encouraged to supply any additional information that you think should be considered by the graduate committee reviewing your materials. Typically, doctoral students are provided stipends and tuition scholarships (associateships) during their course of study.

Hearing and Speech Sciences Courses (HSS)

544 Disorders of Language (5)
Introduction to study of disorders of language in children. Diagnosis of problems, assessment of language abilities. Methodologies and techniques in perceptual, psychomotor, and language and speech training. *Ezell, Garber; W; Sp; Y.*

571 Aural Rehabilitation (5)
Differential diagnosis of children with suspected auditory disorders. Basic remedial procedures employed with hearing handicapped. Practice in planning lessons in speech reading and auditory training. *Christopher; W; Sp; Y.*

578 Sign Language (4)
Instruction in manual sign language systems used by the deaf: vocabulary, encoding, and decoding signs for purposes of communication emphasized. Not open to Hearing and Speech majors. *Christopher; F; W; Y.*

580 Advanced Manual Communication (4)
Basic instruction and practice in finger spelling and signing used by and for deaf and hard of hearing. *Christopher; W; Sp; Y.*

600 The Communicatively Impaired Elderly Patient: Clinical Assessment and Intervention (4)

Clinical assessment of the communication disorders confronting elderly individuals, as well as the development of viable intervention strategies designed to enhance their rehabilitation. Not open to HSS majors. *Christopher, Xue; F; Y.*

601 Introduction to Graduate Study (4)
Nature and critical tasks in hearing and speech sciences. Scientific research methodology, controversial issues, and basic behavioral measurements. *Ezell; F; Y.*

602 Research Methods in Speech and Hearing (4)

Research methodologies and critical examination of existing research. *Su; Y.*

603 Neurophysiology of Speech and Language (4)

Complete study of neuroanatomy with emphasis on speech, language, and auditory processes. Detailed instruction in anatomical structures of respiration, phonation, articulation, and audition as related to central nervous system. Morphological instruction with respect to central nervous system, peripheral nervous system, and autonomic nervous system is also included. *D. Fucci, Hallowell; F; Y.*

609 Communicative Disorders in Infants and Young Children (4)

In-depth study of language intervention strategies for children exhibiting disorders of language. Areas of therapy considered include development of prelinguistic skills, pragmatic as well as semantic and grammatical aspects of comprehension and production. *Garber; F; Y.*

613 Developmental and Disordered Phonology (4)

Study of phonological problems associated with overall language disorders. Emphasis on theories of phonological acquisition, stages of development, description of deviant systems, methods of data collection and analysis, and suggestions for remediation. *Garber; W; Y.*

614 Orofacial Disorders (4)

Discussion of diagnostic and rehabilitation procedures used with individuals having various orofacial disorders including cleft lip and palate. *Dean, Xue, W; Y.*

617 Disorders of Fluency (4)

Stuttering related to theory, research, and therapy. Students select and develop area of interest. *Xue; F; Y.*

619 Language Disorders in School-Age Children (4)

Prereq: 544. Study of cognitive and linguistic characteristics as well as assessment and intervention procedures for children and adolescents experiencing the following conditions: specific language impairment, traumatic brain injury, intellectual impairment, and autism. Emphasis on semantic and pragmatic considerations for an understanding of the conversational and academic problems arising from these conditions. *Ezell, Garber; W; Y.*

621 Disorders of Phonation (4)

Review of anatomy and normal physiology of vocal mechanism. Organic and functional voice problems and related therapy. Research problems in diagnosis and therapy. *Xue; F; Y.*

623 Advanced Diagnostic Procedures in Speech and Language Disorders (4)

Discussion of diagnostic models; interviewing procedures, including intakes, referrals, and counseling; etiology of speech and language disorders; special evaluative techniques, standardized and informal, including speech, language, neurological, behavioral, cognitive, and motor assessments; and direct clinical experiences. *Sp; Y.*

624 Neuromuscular Disorders of Articulation (4)

In-depth study of nature and habilitation of speech disorders of organic etiology. Primary focus on articulation disorders resulting from structural lesions, muscle incoordination, and weakness. *Dean; Su; Y.*

626 Language Problems of the Developmentally Disabled (4)

Evaluating level of language development of developmentally disabled children. Techniques for assisting developmentally disabled children to develop language. *Garber; D.*

627 Medical Aspects of Auditory Disorders (4)

Discussion of medical and surgical treatments for various speech and hearing disorders. Readings in medical literature and familiarization with terminology and philosophies of treatment. *Feeney; Isele; Sp; Y.*

629 Adult Language Disorders (4)

Aphasia, etiologies in adult aphasia, evaluation and rehabilitation of adult aphasic. *Hallowell; W; Y.*

630 Cerebral Palsy (3)

Cerebral palsy, etiologies, related problems; theories and procedures for habilitation.

632 Supervision in Communication Disorders (4)

Preparation of advanced students for employment in teacher education programs and service centers. Individual assignments and specific experience in supervision of diagnostics, therapy, and research, plus administrative supervision. *Buckberry; D.*

635 Practicum in Diagnosis and Therapy (1-15)

Diagnosis, planning of therapy, therapy experience. One staff meeting per week. May be repeated. *J. Fucci, Ginsberg, Kinnard, Parsons, Wright; F, W, Sp, Su; Y.*

635A Audiology Practicum (1-15)

Experience in audiology diagnosis and aural rehabilitation in on-campus clinical and off-campus settings. One class meeting per week plus clinical assignments. May be repeated. *Milliken; F, W, Sp, Su; Y.*

636 Clinical Externship (3-15)

Placement in off-campus clinic or other facility. Students experience all types of diagnosis or therapy during quarter under supervision of certified speech pathologist or audiologist. *Parsons; F, W, Sp, Su; Y.*

637 Student Teaching Seminar (3)

Prereq: concurrent with student teaching. Methods, organization, and implementation of public school speech and hearing programs. *Parsons; W, Sp; Y.*

640 Augmentative Communication (4)

Study of the nature of augmentative communication and assistive listening systems. Development of skills in the application of augmentative communication to communication disorders in adults and children. Hands-on experience with microprocessor-based technology. *Dean; F; Y.*

641 Dysphagia (4)

Basic knowledge of the nature of normal and deviant swallowing disorders due to neurological and structural impairments. Major topics include assessment and management of the wide range of swallowing disorders managed by the speech pathologist. *Dean; W; Y.*

642 Microcomputer Applications in Communication Disorders (4)

Students become computer literate with two computer systems, knowledgeable regarding current and future applications of microcomputers in the communication disorder professions, and skilled with representative applications available in the School of Hearing and Speech Sciences. *Dean; Sp; Y.*

643 Administration of Public School Speech/Language Programs (4)

Prereq: major. Discussion of issues involving administration and implementation of speech and language programs in public school system. Identification of legislation and procedural guidelines for programming; development of administrative, diagnostic, and therapeutic strategies for schools; and discussion of teacher and parent programming. Prerequisite to student teaching. *Parsons; W; Y.*

645 Multicultural Issues in Communicative Disorders (4)

Introduction to study of social dialects; problems and controversies surrounding this issue. Training in recognition of dialectal variations and in teaching standard English to speakers of other dialects. *Garber; Su; Y.*

652 Experimental Phonetics I (4)

Acoustic properties of speech signals and study of speech production. *D. Fucci, Xue; F; Y.*

653 Experimental Phonetics II (4)

Prereq: 652. Acoustical and physiological phonetics relating to speech perception. *D. Fucci, Xue; Sp; D.*

654 Calibration Instrumentation (4)

Instrumentation and procedures used in audiometric calibration. *Su; Y.*

661 Psychological Aspects of Hearing Impairment and Modes of Communication for the Aurally Handicapped (4)

Prepares audiologists/speech pathologists to better understand semantics of deafness as well as alternate modes of communication as used by those who are hearing impaired. *Christopher; F; Y.*

662 Advanced Aural Rehabilitation (4)

Prepares audiologists to structure and execute programs of (re)habilitation for hearing impaired in clinical and/or educational settings. *Christopher; W; Y.*

663 Pediatric/Educational Audiology (4)

Audiometric evaluation of infants and children, including behavioral and electrophysiological techniques. Audiological services in schools discussed, including screening procedures; services to hearing handicapped children; working with other professionals, teachers, and parents; academic programming; and administrative organization. Discussion of federal and state legislation pertaining to handicapped in schools. *Feeney, Zettner; F; Y.*

664 Industrial Audiology and Hearing Conservation (4)

Provides essential information and skills for performing professional role of audiologist in industrial settings and/or management of hearing conservation programs which require hearing testing of large populations. *Isele; W; Y.*

667 Advanced Hearing Science (4)

Advanced discussion of physiological and psychological acoustics. *Feeney; F; Y.*

672 Audiology Procedures for Speech Pathologists (4)

Discussion of methodology, procedures, interpretation of results, and application to rehabilitation procedures included to provide speech pathology students with basic understanding of various audiological procedures used in hearing evaluations with children and adults. Lab time to learn basic instrumentation and test procedures provided. *Zettner; Sp; Y.*

673A Audiological Assessment Differential Diagnosis I (5)

Presents advanced audiological procedures for the differential diagnosis of conductive and cochlear auditory disorders. Lab provides hands-on experience with current test protocols. 4 lec, 2 lab. *Feeney, Zettner; Sp; Y.*

673B Audiological Assessment Differential Diagnosis II (5)

Prereq: 673A. Presents advanced audiological procedures for the differential diagnosis of retrocochlear and central auditory disorders. Lab provides hands-on experience with current test protocols. 4 lec, 2 lab. *Feeney, Zettner; W; Y.*

674A Hearing Aids (5)

Prereq: 673A. Provides information on electroacoustical parameters of hearing aids, signal processing systems, and earmold technology. 4 lec, 2 lab. *Feeney, Zettner; W; Y.*

674B Hearing Aid Selection (5)

Prereq: 674A. Clinical hearing aid selection and verification procedures. 4 lec, 2 lab. *Feeney, Zettner; Sp; Y.*

675A Electrophysiological Measures (5)

Prereq: 673A. Electrophysiological measurements applied to human auditory system with emphasis on auditory evoked potentials. *Feeney, Zettner; Sp; Y.*

676 Psychoacoustics (4)

Prereq: 6 hrs audiology above 600 level. Overview of classical and contemporary psycho-physical methods, physics of sound, excitation of cochlea and auditory nerve, frequency analysis, pitch perception, nonlinear distortion, loudness, frequency, and intensity discrimination. *F; Y.*

677 Bioacoustics (4)

Prereq: 6 hrs of audiology above 600 level. Ear as transducer and analyzer; electrophysiological and mechanical properties of ear. *F; Y.*

678A Seminar in Audiology (1-4)

Current problems and areas of research. Individual reading projects and seminar reports. *F, W, Sp, Su; D.*

685 Balance Function Assessment (5)

Prereq: 673A. Assessment of balance function with emphasis on ENG, rotary chair and platform posturography. 4 lec, 2 lab. *Feeney; W; Y.*

694 Directed Study and Research (1-15)

Prereq: perm. May be repeated. *F, W, Sp, Su; D.*

695 Thesis (1-15)

Prereq: perm. *F, W, Sp, Su; D.*

712 Theories in Language Acquisition and Behavior (4)

Language and cognitive development, verbal learning, and structural properties of speech. *Sp; Y.*

725 Seminar in Clinic Administration (1-4)

Organization and administration of clinical and academic programs in speech pathology and audiology. *Su; D.*

731 Seminar in Speech Pathology (4-5)

Current literature and recent research. Topic changes each quarter. May be repeated. *F, W, Sp, Su; D.*

733 Professional Training Seminar (3-5)

Special topics, changed each offering. Development of special interest areas and innovative procedures. May be repeated. *F, W, Sp, Su; D.*

755 Seminar in Speech Science (1-4)

Topics in speech science and related areas; required papers. *D.*

756 Seminar in Research Problems (1-4)

Organization and preparation of research in scholarly form. Analysis and evaluation of research writing in various areas. Required application of principles to seminar projects. *F, W, Sp, Su; D.*

794 Directed Study and Research (1-15)

Prereq: perm. Final product reviewed by faculty committee. May be repeated. *F, W, Sp, Su; D.*

895 Dissertation (1-15, max 24)

Prereq: perm. *F, W, Sp, Su; D.*

The maximum time allowed between the date that you first initiate graduate study toward the M.S.H.E.C. and the date that you complete the requirements for the degree is six calendar years. You may transfer a maximum of 12 quarter hours of graduate credit from an accredited university, providing the credit to be transferred has been designated graduate credit at the institution where taken, is letter graded B or better, was earned in the past five years, and is approved by the graduate coordinator. Credit for courses taken by correspondence cannot be accepted toward the required minimum hours.

Eligibility to Apply

You must meet the following requirements to be considered for unconditional admission to the graduate program in the School of Human and Consumer Sciences:

1 Earned bachelor's degree in family and consumer sciences or an area related to your selected area of study from an accredited college or university.

2 Minimum overall undergraduate grade-point average (g.p.a.) of 2.7 on a 4.0 scale on last 90 quarter hours or last 60 semester hours.

3 Satisfactory Graduate Record Examination (GRE) scores.

4 A minimum of 20 quarter hours or 13 semester hours of undergraduate preparation in the specific major in which you wish to study.

If you do not meet the above standards, you may be admitted on a conditional basis and informed of the conditions you must meet before being accepted unconditionally. These courses may or may not apply toward your degree. If you are admitted on a conditional basis, you are not eligible for financial assistance.

Application

The following materials must be received before your application can be considered for admission:

1 Application found in back of this catalog (in duplicate).

2 Graduate Record Examination (GRE) scores.

3 Official transcripts from each post-secondary institution attended. (You do not need to submit transcripts of coursework completed at Ohio University.)

4 A letter of intent that states professional goals and reasons for applying for graduate study in your specific program.

5 A resume of your professional work experience.

6 Three letters of recommendation, using the forms found in the back of this catalog, from people who are qualified to evaluate your capability for graduate study.

Submit your completed application, GRE scores, transcripts, and application fee to the Office of Graduate Student Services, Ohio University, Wilson Hall, Athens OH 45701-2979.

The letter of intent, resume and letters of recommendation should be sent directly to the graduate coordinator, School of Human and Consumer Sciences, Ohio University, 108 Tupper Hall, Athens OH 45701-2979.

While applications for admission are accepted during all quarters, it is recommended that applications for both admission and financial aid for the following year be received by April 1. International students must also present TOEFL scores. Financial assistance, such as associateships, are available.

School of Human and Consumer Sciences

The School of Human and Consumer Sciences offers master's programs with concentrations in early childhood education, family studies, community and international nutrition, and nutrition science. Graduate courses in retail merchandising and interior design are also available.

To be awarded the Master of Science in Human and Consumer Sciences (M.S.H.C.S.) degree, you must earn a minimum of 45 quarter hours in programs with a thesis requirement or 50 quarter hours in programs with a seminar paper requirement. You are required to have an approved program of study in your file by the end of the first quarter of enrollment. Your graduate program is planned by you and your advisor, taking into consideration your undergraduate preparation and professional goals.

Early Childhood Education and Family Studies

The early childhood education program provides an opportunity for professionals to continue their education with a

focus on young children (from birth to eight years). The program also prepares you to work with children and their families in a variety of settings, including public schools, child care, agencies, and crisis management. The program of study is developed with your advisor based upon your goals. You may select either the thesis or seminar paper option.

If you are currently certified in special education, elementary education or family and consumer sciences (home economics) education, you may be able to earn an early childhood validation for your teaching credentials through the early childhood education program. The majority of the coursework for validation will be at the graduate level and be part of the requirements for the M.S.H.C.S. Limited coursework at the undergraduate level may be required in some cases. All requirements for early childhood validation must be completed on or before June 15, 2002. The last date that the Ohio Department of Education will grant this validation will be September 2, 2002.

The family studies program prepares individuals who are interested in working with families in many settings, including social service agencies and programs for the elderly. You are encouraged to develop a program of study that blends your academic background and work experience to meet your career goals. You may select either the thesis or seminar paper option.

Program Requirements

Requirements for early childhood education or family studies with the thesis option are:

- 1** Minimum of 45 hours
- 2** 22 hours in major area
- 3** 12 hours in approved minor

4 Required courses:

HCCF 664 Advanced Child Development (5)
 HCCF 674 Advanced Family Development (5)
 HCGE 692 Research
 HCGE 695 Thesis
 Approved statistics course

5 Thesis: You are encouraged to select a topic in an area of interest to your advisor.

Requirements for early childhood education or family studies with the seminar paper option are:

- 1** Minimum of 50 hours
- 2** 28 hours in major area
- 3** 12 hours in approved minor

4 Required courses:

HCCF 664 Advanced Child Development (5)
 HCCF 674 Advanced Family Development (5)
 HCGE 692 Research
 Approved statistics course

5 Seminar paper: You are encouraged to select a topic in an area of interest to your advisor.

Food and Nutrition

The study of human nutrition continues to evolve as a personal, national, and global interest. Two graduate programs are offered. The master's program in international and community nutrition prepares you to work in community-based programs dealing with hunger and malnutrition in the United States and abroad. The master's program in nutrition science allows you to study the more applied aspects of nutrition and science.

Program Requirements

Requirements for international and community nutrition are:

- 1** Minimum of 50 hours

2 Required courses:

HCFN 526 World View of Nutrition (3)
 HCFN 528 Advanced Nutrition (4)
 HCFN 529 Community Nutrition (3)
 HCFN 533 Food Sanitation and Safety (2)
 HCFN 537 Food Service Purchasing (4)
 HCFN 610 Maternal and Child Nutrition (4)
 HCFN 631 Studies in the Science of Nutrition (3-4)
 HCGE 5918 Seminar in Food and Nutrition (2-4)
 HCGE 692 Research (2-5)
 PSY 520 Elementary Statistics (5)

- 3** 12 hours in approved minor

4 Seminar paper

Requirements for nutrition science are:

- 1** Minimum of 45 hours

2 Required courses:

BIOS 542 Principles of Physiology I (3)
 BIOS 543 Principles of Physiology II (3)
 BIOS 682 Advanced Topics (1-3)
 HCFN 528 Advanced Nutrition (4)
 HCFN 530 Therapeutic Nutrition (4)
 HCFN 533 Food Sanitation and Safety (2)
 HCFN 660 Nutrition for Sports & Fitness (4)
 HCGE 5918 Seminar in Food and Nutrition (2-4)
 HCGE 695 Thesis (2-5)
 PSY 520 Elementary Statistics (5)

3 Approved electives

4 Thesis

Courses

Child and Family Studies (HCCF)

544 Adult Education in Human and Consumer Sciences (4)

Organizational procedures, curriculum materials, and methods of conducting adult education in various settings. *W*.

552 Home Management for the Disabled Homemaker (4)

Home management problems faced by disabled individuals and creative methods and materials to use in solving those problems. *D*.

553 Functional Assessment in Independent Living (3)

Identification of the functional limitations experienced by disabled clients in completing household tasks, methods for assessing functional limitations, and creative strategies and resources to increase functioning in the performance of household tasks. *D*.

562A Pluralistic Life Styles (3)

Analysis of current pluralistic marriage and family life patterns in American society. *Wilcox; F; Y*.

562B Parenthood (3)

Analysis of dynamics of parenthood. *Wilcox; F; Y*.

562C Middle Childhood (3)

Interpretation of developmental tasks of middle childhood years as they reflect and influence family guidance and transmission of values. *W; Y*.

562D The One-Parent Family (3)

Analysis of dynamics of one-parent family in light of its needs, challenges, and distinctive characteristics. *W; Y*.

562E Youth Identity Crisis (3)

Analysis of identity crisis in terms of its psychological and interpersonal aspects of adolescence. *Sp; Y*.

562F The Aged Family (3)

Synthesis of multiple dimensions of aged family. *Wilcox; Sp; Y*.

563 Preschool Administration (5)

Problems in organizing and administering pre-schools, play groups, and Head Start programs. *Waller; Sp; Y.*

565 Parent Education (4)

Supervised experience in organizing, formulating, conducting, and evaluating discussion groups, classes, programs, and individual conferences for parents and youth leaders. *Y.*

571 Family Life Education (4)

Selected fundamental educational problems explored. Examination of various dimensions of teacher's role and critical appraisal of student's professional competency to teach classes in family relations. *W.*

580 Death and Dying (4)

Examination of why we fear death, how it affects family relationships, source of guilt feelings, and related issues; synthesis of multiple dimensions of death and dying. *Wilcox; Sp; Y.*

664 Advanced Child Development (5)

Theories and principles of child development as advanced by various disciplines. *Geist; F; Y.*

672 Special Studies in Human Development (2-5)

In-depth study in selected area. *F, W, Sp, Su; D.*

674 Advanced Family Development (5)

Specific conceptual schemes of major theorists in various areas of home economics relative to broad issues of philosophy and values. Consideration of differential amenability of various areas in procedures to problems of family development. *Chabot; W; Y.*

675 Introduction to Principles of Family Consulting (4)

Prereq: 674. Development of operational definitions, theoretical formulations, and illustrations applicable to its uniqueness. *D.*

679 Special Studies in Family Relations (2-5)

Prereq: 562. In-depth study in selected area. *F, W, Sp, Su; D.*

689 Self, Aging, and Society (4)

Synthesis of issues inherent in biological theories, psychological aspects, sociological perspectives, health care aspects, and public policy issues in aging and aged within context of self and society.

690 Thanatology (4)

Synthesizes the components inherent in the current philosophical and religious views and beliefs, the psychological and clinical dimensions, the sociological factors, and the ethical and moral issues of death in the context of defining and coping with death.

Food and Nutrition (HCFN)**522 Experimental Foods (4)**

Factors that affect results of different methods used in food preparation. Research techniques using subjective and objective evaluation. *Sp; Y.*

524 Nutrition Treatment in Outpatient Care (4)

Nutrition counseling and process skills (including assessment, treatment, evaluation, and documentation) for ambulatory patients requiring dietary modification to prevent and/or treat overweight/obesity, hypertension, hyperlipidemia, diabetes mellitus, and cancer.

526 World View of Nutrition (3)

Survey of world food situation with consideration of environmental, cultural, governmental, and economic factors that relate to food production and consumption. Evaluation of effects of these factors in meeting dietary needs. *W; Y.*

528 Advanced Nutrition (4)

Prereq: CHEM 589. Biochemical and physiological processes in nourishment of body. Determination of nutrient needs and evaluation of nutritional status. *Holben; F; Y.*

529 Community Nutrition (3)

Prereq: 528. Assessment of community nutrition needs. Survey of agencies and programs providing services. Role of nutritionist. Methods and resources for nutrition education, legislation. *Sp; Y.*

530 Therapeutic Nutrition (4)

Prereq: 528, CHEM 589. Use of dietary modification in prevention and treatment of disease. Nutritional assessment; problems in nutritional care. *Holben; W; Y.*

533 Food Sanitation and Safety (2)

Applied food service sanitation procedures in the food handling functions of purchasing, storage, preparation, and service. Upon completion, students will be eligible for National Certification in Food Safety. *Neumann; W; A.*

534 Quantity Food Production (4)

Food preparation principles applied to large quantity food production, menu planning, and service in institutions. Experience in residence halls. *Neumann; F; Y.*

535 Food Service Purchasing (4)

Prereq: 534. Managerial approach to the purchasing and selection of a wide variety of food, beverage, and nonfood items. Emphasis on purchasing the optimal amount at the optimal price. *Neumann; W; A.*

537 Food Service Systems I (5)

Prereq: 534. Introduction to tools and functions of management in food service with emphasis on organizational structure, catering, staffing, work methods, human relations skills, sanitation, and safety. *Graham, Neumann; W; Y.*

538 Food Service Systems II (4)

Prereq: 534. Institutional food purchasing, kitchen layout design, equipment selection, facilities management, and cost control. *Graham, Neumann; Sp; Y.*

539 International Cuisine (4)

Prereq: 534, 537. Principles of international cuisine, advanced food preparation, and research of areas of specific interest. *Neumann; Sp; A.*

599 Field Experience—Food and Nutrition (2-12)

Clinical experience through cooperation with hospitals, institutions, community agencies, or business organizations. *F, W, Sp, Su; D.*

610 Maternal and Child Nutrition (4)

Prereq: 529. Focuses on maternal and child nutritional needs and the symbiotic relationship between the two. The physiology of pregnancy and lactation and other issues that influence maternal nutrition and well-being are discussed. Child nutrition covers growth, development, and nutrient needs of infants and children (under age five). Environmental and policy issues that affect the nutritional needs of these two groups also addressed.

624 Advanced Food Science (3-4)

Chemical and physical behavior of basic food constituents and their influence on characteristics and nutritive value of foods. *D.*

625 Readings in Food and Nutrition (2-4, max 8)

Critical review of current literature with emphasis on modern theory and practice in nutrition and food preparation. *D.*

626 Methods of Food and Nutrition Investigation (3-4, max 8)

Prereq: 531 or 624. *D.*

627 Studies in Food and Nutrition (3-5, max 5)

Prereq: 522 or 531. *D.*

631 Studies in the Science of Nutrition (3-4, max 8)

Prereq: 528, 530, CHEM 589. Nutrition as related to physiological and metabolic processes. Individual research project. *D.*

650 Diet and Chronic Disease (4)

Prereq: 528, 530. Examination of data associating dietary patterns with certain chronic diseases, such as atherosclerotic cardiovascular disease, hypertension, cancer, and obesity.

660 Nutrition for Sports and Fitness (4)

Exploration of current information available in scientific literature concerning interrelationships between dietary adequacy and physical performance. *Hagerman; W; Y.*

Human and Consumer Sciences General Education (HCGE)**543 Vocational Home Economics (4)**

History and philosophy of vocational home economics education. Contemporary trends, methods, sources of materials, and evaluation.

559 Human and Consumer Sciences Seminar, Workshop, and Short Course in International Service (2-4)**579A-K Workshop in Human and Consumer Sciences (1-6, max 6)**

Prereq: teaching experience. Special workshops on topics related to human and consumer sciences: (A) Home Economics Education, (B) Clothing and Textiles, (C) Food and Nutrition, (D) Child Development, (E) Consumer Economics, (F) Home Furnishings, (G) Home Management, (H) Household Equipment, (I) School Lunch Management, (K) Family Life Education.

590A-D Independent Study (1-5, max 8)

Independent advanced study under direction of faculty member in area of specialization: (A) Consumer Service and Education, (B) Human Development and Family Ecology, (C) Human Environment and Design, (D) Human Nutrition and Food Science.

591A Understanding Play (4)**591B-E Seminar or Short Course in Human and Consumer Sciences (2-4, max 4)**

Research and recent developments in area of specialization: 591B Food and Nutrition, 591C Home Economics Education, 591D Housing and Management, 591E Textiles and Clothing.

591F Research Methods (2-4)**639 Studies in Household Equipment or Management (2-4, max 4)****640 Supervision in Human and Consumer Sciences (4)**

Leadership functions, principles, and practices involved in effective supervision in human and consumer sciences. *D.*

646 Home Economics in Higher Education (4)

Basic philosophy and issues concerning place of home economics in higher education today. General trends in curriculum offering, teaching practices, evaluation, administration, and research. *D.*

650 Studies of Home Economics Education (2–4, max 8)

Prereq: Teaching experience in home economics.

692 Research (2–4, max 5)

Independent investigation in one area of home economics.

695 Thesis (2–10, max 5 toward degree)**Interior Design (HCID)****580 History of Furniture and Interior Design I (3)**

Study of the history of interiors, furnishings, decorative arts, and architecture of the ancient world, the middle ages, and the gothic, renaissance, French and Beidemeir periods. *F; Y.*

581 History of Furniture and Interior Design II (3)

Study of the history of interiors, furnishings, decorative arts, and architecture of England (Tudor through Victorian) and America (Early American through Victorian). *W; Y.*

582 History of Furniture and Interior Design III (3)

Study of the history of interiors, furnishings, decorative arts, and architecture of the twentieth century. *Sp; Y.*

Retail Merchandising (HCRM)**505A History of Costume (4)**

Clothing through the ages as reflection of historical period and source for present-day design. *Cone; W; Y.*

505B History of Textiles (2)

Textiles through the ages as reflection of historical period and source for present-day design. *Cone; D.*

507 Textile and Fashion Industry (4)

Problems confronting buyer of textile products as related to specific manufacturing situations involved. *W; Y.*

515 Flat Pattern (4)

Emphasis on fitting techniques. Use and understanding of commercial patterns. *Cone; D.*

518 Textile Testing (4)

Principles, techniques, and standard testing methods of quality control for textiles, clothing, and interior design. Lab sessions emphasize standard textile testing procedures and research methods. Federal and state laws and codes designed to protect consumers also discussed. *Paulins; Sp; Y.*

519 Studies in Textile Testing (3)

Individual research and lab testing of problems in advanced textiles. *D.*

554 Clothing for Persons with Special Needs (3)

Various dressing techniques and functional design alternatives available to increase independence of individuals with special needs. Focus on such populations as the elderly, mentally disabled, and temporarily or permanently physically disabled. *Cone; D.*

609 Psychological, Social, and Economic Aspects of Clothing (4)

Contemporary uses and roles of textiles and clothing as affected by economic, social, and psychological forces seen in historic perspective. *D.*

612 Advanced Studies in Clothing (2–4, max 4)

Advanced problems and techniques in clothing construction. Emphasis on scientific principles of construction and experimental methods and fabrics. *D.*

615 Advanced Studies in Textiles (2–4, max 4)

Physical and chemical examination of fibers, yarns, and fabrics with emphasis on application of testing techniques as applied to individual textile studies. *D.*

617 Readings in Textiles and/or Clothing (2–4, max 4)

Analysis and interpretation of current writings and research with emphasis on new developments and trends. *D.*

School of Physical Therapy

The School of Physical Therapy offers an entry-level master's program in physical therapy leading to a Master of Physical Therapy (M.P.T.) degree. The program begins in June and extends over a three-calendar-year period. The problem-solving curriculum is designed to prepare competent health care professionals who will be able to employ critical decision-making skills for optimal patient care and utilize critical inquiry for self-assessment, health care and professional issues, evaluation, research, and practice analysis.

Clinical experience is integrated with the didactic and laboratory components throughout the program of study. Part-time clinical practica are arranged in local clinics (community hospitals, home health agencies, skilled nursing facilities, developmental disabilities centers, and private practices). Students are supervised by faculty and staff from Ohio University Therapy Associates, the school's faculty practice, and local clinicians. Full-time clinical practica are arranged in clinical facilities located outside of the Athens area. The School of Physical Therapy has agreements with medical centers, general acute hospitals, rehabilitation centers, and specialty clinics in Ohio as well as Arizona, California, Colorado, Florida, Illinois, Indiana, Kentucky, Louisiana, Michigan, Mississippi, New Jersey, New York, North Carolina, Pennsylvania, Tennessee, Virginia, and West Virginia.

If accepted into the program, you will be responsible for your own transportation to and from clinical sites and for

housing and other living expenses during all of your affiliations. You also will be required to: (1) obtain CPR certification; (2) have a physical examination, including evidence of results of a recent TB skin test; and (3) provide documentation of current immunization for hepatitis B (or waiver form). Because you may be exposed to infectious diseases during your affiliations, some sites may require proof of immunization for other diseases. In addition, you must purchase name tags and malpractice insurance to be eligible for participation in the clinical practica. Membership in the American Physical Therapy Association and attendance at state conferences are encouraged.

Eligibility to Apply

The School of Physical Therapy accepts students in two categories: those who already possess a baccalaureate degree and those who are eligible to receive a baccalaureate degree by the completion of the first year of professional study.

You must meet the following requirements to be eligible to apply for June admission to the School of Physical Therapy's graduate program:

- 1 earned a minimum overall grade-point average (g.p.a.) of 3.0 on a 4.0 scale.
- 2 completed at least 8 of the 12 Life and Physical Sciences prerequisite courses by the end of the fall quarter in which you apply. You must complete the remainder of the math, behavioral, and life/physical science prerequisites during the winter and spring quarters following submission of your application and before beginning study in the program.
- 3 completed or be able to complete a baccalaureate degree by the end of the first year of the program.

Minimum Prerequisite Course Requirements*

General

PHIL 120	Principles of Reasoning (4)
PSY 221	Statistics for Beh. Sciences (5)
PSY 273	Child and Adolescent Psy. (4)

Plus one additional psychology course (not including PSY 120 or 221)

Mathematics
MATH 163A Intro to Calculus (4)

Life and Physical Sciences**

BIOS 170	Intro to Zoology (5)
BIOS 171	Intro to Zoology (5)
BIOS 301 or BIOS 302 or BIOS 303	Human Anatomy (6) Human Anatomy (6) Comp. Vert. Anatomy (6)
BIOS 345, 346	Human Physiology (7)
BIOS 445, 446 or PE55 414, 415	Phys. of Exercise (7)*** Phys. of Exercise (7)***
CHEM 121,122,123 or CHEM 151,152,153	Principles of Chemistry (12) Fundamentals of Chemistry (15)
PHYS 201, 202	Intro to Physics (10)

Total 66-69 quarter hours

*All prerequisite courses must be passed with a grade of "C" or better.

**All life and physical science courses must include a laboratory component. You must have a total of 20 quarter hours (14 semester hours) at or above the junior (300) level in anatomy, physiology, and exercise physiology lecture and lab courses.

***Ohio University students must take these courses prior to entering the physical therapy program. Transfer students who have not had these courses may be admitted to the program on the condition that they take these courses during the first year of graduate study.

Application

Materials are available each September for application to the following year's class (which begins in June). The application deadline is the third Wednesday in November. To apply, you must:

1 Obtain a Physical Therapy Graduate Program admission packet from the School of Physical Therapy, Ohio University, Convocation Center 172, Athens OH 45701 or download it from the school's Web site. All application materials are included in the packet; do not use application or recommendation forms found in this catalog.

2 Submit your completed application packet to School of Physical Therapy, Ohio University, Convocation Center 172, Athens OH 45701-2979, by the third Wednesday in November. The following materials must be included:

a Evidence of either an earned baccalaureate degree or a plan for degree completion:

1 If you have a baccalaureate degree at the time of application, submit a transcript with verification of the degree(s) awarded.

2 If you do not have a baccalaureate degree at the time of application but will have a baccalaureate degree awarded before beginning the professional program in June, submit a plan for completing the degree signed by your advisor. Verification of the completion of degree requirements must be provided before you begin the professional program. An official transcript indicating the awarding of the degree must be received by Graduate Student Services by the start of the fall quarter.

3 If you will not have a baccalaureate degree before you begin the professional program in June and you are pursuing a degree *in absentia*, submit a plan for completing the degree signed by the dean of your college or your advisor. (If you are admitted to the program and you do not complete a degree by the end of the first year, you will not be allowed to progress into the second year which begins the next June.)

A degree *in absentia* is offered through the College of Arts and Sciences Biological Sciences Prephysical Therapy Program or Psychology Pepphysical Therapy Program.

b Two official transcripts, with course descriptions, from each postsecondary institution attended. (You do not need to submit transcripts for coursework completed at Ohio University.)

c Nonrefundable application fee.

Selection

The School of Physical Therapy admissions committee considers the following in ranking and selecting eligible applicants:

- 1 Overall g.p.a.
- 2 Prerequisite life and physical sciences g.p.a.
- 3 Interview
- 4 Essay
- 5 References
- 6 Life experiences

Typically 36 students are admitted yearly. You will be notified of acceptance no later than mid-April.

Eligibility Requirements to Begin Physical Therapy Coursework

If admitted, you must meet the following requirements before you begin physical therapy coursework in June:

1 Completion of all prerequisite coursework.

2 Completion of a baccalaureate degree or an approved plan for baccalaureate degree completion by the end of the first year of the physical therapy program. If you do not complete a degree by the end of the first year, you will not be allowed to progress into the second year the following June.

Program of Study

The following is a listing of the courses required in the three-calendar-year graduate professional education program in physical therapy. First-year courses are dual listed at the undergraduate (400) and graduate (500) level. Depending upon your admittance status, you enroll in either the undergraduate or graduate level of the course during your first year.

First-Year Coursework

PT 400/500	Human Anatomy & Dissection (7)
PT 401/501	Functional Anatomy (3)
PT 402/502	Clinical Kinesiology (3)
PT 403/503	Pathophysiologic Processes in Physical Therapy (2)
PT 404/504	Intro to the Profession (2)
PT 405/505	Intro to Clinical Education (2)
PT 406/506	Clinical Neurology for Physical Therapists (2)
PT 412/512	Professional Role Issues (2)
PT 425A/ 525A	Evaluation: Case Studies (2)
PT 440/540	Clinical Decision Making (3)
PT 448A/ 548A	Clinical Modalities (3)
PT 450A/ 550A	Intro to Clinical Orthopedics (3)
PT 467/567	General Medical Surgical (3)
PT 480A/ 580A	Research Design (3)
PT 499/599	Clinical Education Experience I (1)
BIOS 402	Neuroscience (4)

Second-Year Coursework

PT 641	Culture and Health (2)
PT 642	Planning Physical Therapy Services (2)
PT 651	Theoretical Foundations of Orthopedic Physical Therapy (3)
PT 652	Clinical Orthopedics I (4)
PT 653	Clinical Orthopedics II (4)
PT 660	Foundations of Neurological Physical Therapy (4)
PT 662	Problems in Positioning (3)
PT 663	Sensorimotor Control Mechanisms in Adult Neurological Rehab (4)
PT 668	Advanced Medical-Surgical Cases (3)
PT 670	Cardiopulmonary Physical Therapy (3)
PT 675*	Clinical Practicum I (3)
PT 676*	Clinical Practicum II (3)
PT 679	Clinical Teaching-Learning Processes (3)
PT 681	Research Issues I (2)
PT 682	Research Issues II (2)
PT 699	Clinical Education Experiences II

Third-Year Coursework

PT 643	Managing Physical Therapy Services (2)
PT 644	Legal and Ethical Issues (2)
PT 654	Advanced Orthopedic Seminar (2)
PT 661	Motor Control and Applied Developmental Physical Therapy (3)
PT 664	Advanced Neurological Seminar (2)
PT 670	Cardiopulmonary Physical Therapy (3)
PT 677*	Clinical Practicum III (2)
PT 678*	Clinical Practicum IV (7)
PT 683	Research Issues III (2)
PT 685	Advanced Case Studies in Physical Therapy Evaluation and Treatment (3)
PT 690	Independent Study (1-4)
PT 692	Critical Analysis of Physical Therapy (2)
PT 694	Research (1-4)
PT 699	Clinical Education Experiences II

*The clinical practica are full 40-hour-week experiences. Clinical Practicum I is six weeks during the second summer of the program. Clinical Practicum II is six weeks during the third summer of the program. Clinical Practicum III is four weeks during the winter break of the third year. Clinical Practicum IV is 12 weeks in the spring of the third year.

Physical Therapy Courses (PT)

500 Human Anatomy and Dissection (7)
Detailed study of gross structures of extremities and body wall with emphasis on musculoskeletal, neuromuscular, respiratory, and cardiovascular structures. Relationships of structure to normal and abnormal function stressed. Includes surface inspection, palpation, analysis of radiographic studies, and dissection. 4 lec, 9 lab. *Su*; Y.

501 Functional Anatomy (3)
Prereq: C or better 500. Based on a foundation of gross anatomy structure, course applies the principles of biomechanics to explore the relationship between structure and function. Emphasis on biomechanics, arthrokinematics, and muscle function of common activities. Study of palpation, goniometry, manual muscle testing. 2 lec., 2 lab. *F*; Y.

502 Clinical Kinesiology (3)
Prereq: 501. Course applies the principles of functional anatomy to the study of posture and gait. Applications of palpation, goniometry, and muscle testing skills to clinical situations. 2 lec, 3 lab. *W*; Y.

503 Pathophysiological Processes in Physical Therapy (2)
Prereq: 501. Application of physiological principles to the study of disease and injury. Of particular importance are the etiologies and classifications of pathology and the implications of pathophysiology for physical therapy evaluation and treatment. 2 lec. *W*; Y.

504 Introduction to the Profession (2)
Prereq: major. Introduces the physical therapy profession and professional role expectations. Studies the history of physical therapy as it relates to the professionalization process, including ethical and legal obligations, as well as student responsibilities. 2 lec. *Su*; Y.

505 Introduction to Clinical Education (2)
Prereq: 504. Introduces professional role responsibilities and patient problems involved in different clinical settings such as acute care hospitals (inpatient and outpatient), outpatient clinics, rehab facilities, home health agencies, long-term care facilities, schools, and industrial settings. Basic communication skills for effective therapist/patient interaction. Prepares students for first clinical experiences. 2 lec. *F*; Y.

506 Clinical Neurology for Physical Therapists (2)
Prereq: 500. Provides a link between basic neuroscience and the clinical manifestations which occur following a disruption of processes within the peripheral and central nervous systems. Focus will be on signs and symptoms of conditions treated by physical therapists (same as PT 406). 2 lec. *F*; Y.

512 Professional Role Issues (2)
Major philosophical and substantive issues confronting physical therapists and other professionals involved in health care delivery are discussed. Includes historical perspectives, education and accreditation, and roles and responsibilities of physical therapists relative to supportive personnel and related health care disciplines. Emphasis on role problems. 2 lec. *W*; Y.

525A PT Evaluations: Case Studies (2)
Introduction to evaluation formats and procedures to complement the clinical decision-making process concurrently taught. Focus on presenting general and specialty evaluations by clinicians, with opportunities for discussion, practice, and critique. 1 lec, 2 lab. *W*; Y.

540 Clinical Decision Making (2)
Presents theoretical foundation of clinical problem solving. Problem solving models for decision making are advanced and critiqued. Focus on physical therapy evaluation and treatment with analysis of process utilized by clinicians. Application in the clinical setting is provided through arranged experiences. 2 lec. *W*; Y.

548A Clinical Modalities (3)
Prereq: 503. Designed to provide both theoretical base and procedural techniques involved in the use of clinical modalities. Emphasis on thermal agents, mechanical agents, electrical stimulation, biofeedback, and electromyography. 2 lec, 3 lab. *Sp*; Y.

550A Introduction to Clinical Orthopedics (3)
Prereq: 502. Application of kinesiology, pathophysiology, evaluation, and decision-making skills in common conditions such as sprains, strains, fractures, and total joint arthroplasty. Clinical decision making in sports medicine, industrial, and geriatric cases. Aspects of orthopedic surgical intervention discussed. 2 lec, 3 lab. *Sp*; Y.

567 General Medical-Surgical Cases (3)
Prereq: 500. Presentation of general medical-surgical patient problems commonly seen in physical therapy. Case-study approach incorporates basic, social, and clinical sciences as well as PT and interdisciplinary evaluation and treatment. Practice skills focus on diagnostic and patient care procedures. 2 lec, 3 lab. *Sp*; Y.

580A Research Design (3)
Prereq: 540. Application of research principles and procedures to critical analysis of physical therapy related research literature; identification and development of a researchable problem in physical therapy. 3 lec. Y.

599 Clinical Education Experience I (1)
Prereq: 505. Students are assigned clinical experiences appropriate to their level of skill (same as PT 499) 3 lab. *F*; *W*; *Sp*; Y.

641 Culture and Health (2)
Prereq: 540. Provides a cultural perspective for clinical problem solving. Focus is on the cross-cultural nature of professional-patient interaction. Participation in clinical setting allows students to explore cultural dimensions of actual cases and communities. 2 lec, *F*; Y.

642 Planning Physical Therapy Services (2)
Provides students with basic knowledge and skills needed to plan for physical therapy services. Topics include organizational theory and design, as well as planning for space, personnel, and budget needs of a physical therapy practice. 2 lec. *W*; Y.

643 Managing Physical Therapy Services (2)
Provides students with the basic knowledge and skills needed to manage physical therapy services. Topics include implementing personnel, equipment, and budgetary policies and procedures. 2 lec. *Sp*; Y.

644 Legal and Ethical Issues (2)
Prereq: 643. Provides an ethical and legal framework for clinical problem solving. Focuses on personal and professional assessment of complex issues in health care delivery. Participation in clinical setting to explore ethical and legal issues in patient practice. 2 lec.. *W*; Y.

651 Theoretical Foundations of Orthopedic Physical Therapy (3)

Prereq: 550. Presentation of patient problems involving musculoskeletal dysfunction commonly seen in PT. Each problem incorporates content from basic, social, and clinical sciences, as well as physical therapy arts and sciences. 2 lec, 3 lab. *F; Y.*

652 Clinical Orthopedics I (4)

Prereq: 651. Designed to complement and expand on the basic knowledge and skills taught in 651. Focuses on specific pathological problems of the hip, knee, ankle, foot, and lumbar spine. Covers the anatomy, arthrokinematics, detailed evaluation, and treatment in relation to specific pathological problems. 3 lec, 3 lab. *W; Y.*

653 Clinical Orthopedics II (4)

Prereq: 652. Designed to complement and expand on basic knowledge and skills taught in 652. Focuses on specific pathological problems of the cervical spine, shoulder, elbow, wrist, and hand. Covers the anatomy, arthrokinematics, detailed evaluation, and treatment in relation to specific pathological problems. 3 lec, 3 lab. *Sp; Y.*

654 Advanced Clinical Orthopedic Seminar (2)

Prereq: 653. Provides opportunity to integrate knowledge and skills from prior orthopedic courses into the study of advanced patient problems. Emphasis on recent theoretical advances and/or state-of-the-art physical therapy approaches. 2 lec. *W; Y.*

660 Foundations of Neurological Physical Therapy (4)

Prereq: 500. Presentation of patient problems involving neuromuscular dysfunction associated with trauma or pathology of spinal or peripheral structures. Content of each problem incorporates basic, social, and clinical sciences and physical therapy arts and sciences. 3 lec, 3 lab. *F; Y.*

661 Motor Control and Applied Developmental Physical Therapy (3)

Prereq: 660. Physical therapy evaluation, treatment, and documentation of developmental patient problems related to central nervous system dysfunction in infants, children, and adolescents. Emphasis on treatment procedures for clients with abnormalities of muscle tone, postural stability and adjustment, movement quality, and function. 2 lec, 3 lab. *F; Y.*

662 Problems in Positioning (3)

Prereq: 661. Designed to help students learn to augment physical therapy plans of care by integrating the use of prosthetics, orthotics, casts, mobility systems, custom seating systems, and adaptive positioning systems. 2 lec, 3 lab. *Sp; Y.*

663 Sensorimotor Control Mechanisms in Adult Neurological Rehabilitation (4)

Prereq: 660. Physical therapy evaluation, treatment, and documentation of complex problems related to sensorimotor control dysfunction in adults. Contemporary models of neurophysiologic control of posture and movement form the basis for applying evaluation and treatment procedures for abnormalities of muscle tone, postural adaptability, movement quality, and function. 2 lec, 4 lab. *W; Y.*

664 Advanced Clinical Neurology Seminar (2)

Prereq: 567. Provides opportunity to integrate knowledge and skills from prior neurology courses and clinical experiences into the study of advanced patient problems and critical issues. Emphasis on recent theoretical advances and/or complex, state-of-the-art physical therapy approaches. 2 lec. *W; Y.*

668 Advanced Medical-Surgical Cases (3)

Prereq: 667. Designed to provide students with opportunities to incorporate the knowledge and skills of medical-surgical problems with physical therapy knowledge and skills. Emphasis on complex medical-surgical problems, advanced evaluation and treatment techniques, and interdisciplinary health care issues. 2 lec, 3 lab. *Sp; Y.*

670 Cardiopulmonary Physical Therapy (3)

Prereq: 667. Covers patient problems involving cardiovascular and respiratory dysfunction commonly seen in physical therapy. Problems incorporate content from basic, social, and clinical sciences and physical therapy arts and sciences. 2 lec, 2 lab. *F; Y.*

675 Clinical Practicum I (3)

Prereq: 512. Participation in planning, development, delivery, and evaluation of patient care and administrative, educational, and consultative services in physical therapy or community health. Students assigned to variety of community-based physical therapy units and health care agencies. 40 hours/week for six weeks. *Su; Y.*

676 Clinical Practicum II (3)

Prereq: 675. See 675 for description. 40 hours/week for four weeks. *Su; Y.*

677 Clinical Practicum III (2)

Prereq: 676. See 675 for description. 40 hours/week for six weeks. *W; Y.*

678 Clinical Practicum IV (7)

Prereq: 677. See 675 for description. 40 hours/week for 12 weeks. *Sp; Y.*

679 Clinical Teaching-Learning Processes (3)

Prereq: 567. Application of education theories, practices, and procedures in developing, implementing, and evaluating instructional programs for patients, families, community groups, physical therapy students, and health care providers. Emphasis on unique demands imposed on education by consumer's health care needs, clinical environment, and health care organization and delivery. 2 lec, 3 lab. *W; Y.*

681 Research Issues I (2)

Prereq: 580. Designed as part of a three-course series on systematic inquiry into questions surrounding PT education and clinical practice. Explores theoretical frameworks for both quantitative and qualitative research design. Topics depend upon faculty and student research questions and will vary each year. Students may take research hours concurrently to work with an advisor on an approved project. 2 lec. *F; Y.*

682 Research Issues II (2)

Prereq: 681. Second course in series and explores data collection and analysis methodologies. Students may take research hours concurrently to work with an advisor on an approved project. 2 lec. *Sp; Y.*

683 Research Issues III (2)

Prereq: 682. Third course in series explores the dissemination of research findings through publication, presentation, and grant writing. Topics will depend on research projects completed and dissemination strategies of the researchers. Students may take research hours concurrently to work with an advisor on an approved project. 2 lec. *F; Y.*

685 Advanced Case Studies in PT Evaluation and Treatment (3)

Prereq: 653, 663. Synthesis course designed to incorporate basic and clinical science knowledge and skills into evaluation and treatment of complex patient problems. Emphasis on integration of theory and practice with application to advanced cases. 2 lec, 3 lab. *W; Y.*

690 Independent Study (1-4, max 12)

Supervised study of selected topics in or related to physical therapy.

692 Critical Analysis of Physical Therapy (2)

Prereq: 683. Designed to develop skills necessary for the analysis of physical therapy education, research, and practice. Emphasis on aspects of physical therapy evaluation and treatment, both on the patient and program level. 2 lec. *W; Y.*

694 Research (1-4, max 12)

Supervised research in selected topic of interest.

699 Clinical Education Experience II (1)

Prereq: 550A. Students are assigned clinical experiences appropriate to their level of skill in a variety of settings. May be repeated for a maximum of 12 hours. 3 lab. *F; W; Sp; Y.*

School of Recreation and Sport Sciences

<http://www.ohiou.edu/rsps/>

The School of Recreation and Sport Sciences offers three different master's degrees. The Master of Science in Physical Education (M.S.P.E.) offers concentrations in athletic administration, athletic training, physical education pedagogy, recreation studies, and sport physiology and adult fitness. The school also offers programs leading to the Master of Science in Physiology of Exercise (M.S.P.Ex.) and the Master of Sports Administration (M.S.A.).

The school offers a unique "summers only" master's program, which allows public school teachers and others with a flexible summer schedule to complete the requirements for a master's degree in physical education pedagogy or athletic administration in three consecutive summer sessions. Coursework is presented on a three-year cycle that requires consecutive attendance.

The maximum time allowed between the date that you first initiate graduate study toward any of the master's degree options and the date that you complete the requirements for the degree is six calendar years. Full-time students can typically complete the M.S.P.E. programs in a year, M.S.P.Ex. in two years, and M.S.A. in a year plus the length of time needed to complete an internship.

You may transfer a maximum of 12 quarter hours of graduate credit from an accredited university, providing the credit to be transferred has been designated graduate credit at the institution where taken, is letter graded B or better, was earned in the past five years, and is approved by the graduate coordinator. Credit for courses taken by correspondence cannot be accepted toward meeting the required minimum hours.

Master of Science in Physical Education (M.S.P.E.)

Eligibility to Apply

You must meet the following requirements to be considered for unconditional admission to the School of Recreation and Sport Sciences graduate concentrations in athletic administration, athletic training, physical education pedagogy, recreation studies, and sport physiology and adult fitness:

1 Earned bachelor's degree in physical education, sport sciences or recreation or an area related to your selected area of study from an accredited college or university. If your bachelor's degree is not in physical education, sport sciences, or recreation, you may be admitted conditionally. To be admitted unconditionally for fall, you must complete a professional readings course during the summer session.

Students who wish to pursue the physical education pedagogy concentration must possess teaching certification or licensure from an accredited undergraduate program.

2 Minimum overall undergraduate grade-point average (g.p.a.) of 2.7 on a 4.0 scale on last 90 quarter hours or last 60 semester hours

3 Satisfactory Graduate Record Examination (GRE) scores.

Application

The following materials must be received before your application can be considered for admission:

1 Application found in back of this catalog (in duplicate).

2 Graduate Record Examination (GRE) scores.

3 Official transcripts from each post-secondary institution attended. (You do not need to submit transcripts of coursework completed at Ohio University.)

4 A two-page typed biography that includes information about your background and experiences and how they relate to your future career goals.

5 A resume of your professional work experience.

6 Three letters of recommendation using the forms found in the back of this catalog. At least one of your references must be an individual who can attest to your qualifications in your chosen field and one from an academic faculty member who can support your ability to produce successful academic work at the graduate level.

Submit your completed application, GRE scores, transcripts, and application fee to the Office of Graduate Student Services, Ohio University, Wilson Hall, Athens OH 45701-2979.

The biography, resume and letters of recommendation should be sent directly to the graduate coordinator, School of Recreation and Sport Sciences, Ohio University, Research and Technology Center, Athens OH 45701-2979.

Note: If you are applying to the athletic training concentration, an on-campus interview at your expense is required. Since all accepted students participate in a partnership program to provide athletic training services at affiliate sites such as high schools, colleges or clinics, it is necessary to match qualifications with site needs.

While applications for admission are accepted during all quarters, it is required that all applications for both

admission and financial aid for the next academic year be received by March 1 unless indicated differently. Applicants to the athletic training program must apply by February 1. If you are interested in the athletic administration concentration and you have an undergraduate degree from an academic area other than physical education, sport sciences, or recreation, you will be admitted conditionally and will be required to complete a readings course (PESS 690) prior to your first quarter of enrollment. International students must also present TOEFL scores (minimum of 575 for consideration) and apply by February 1. Students applying for admission other than fall quarter must complete the application process by November 1 for winter quarter and February 1 for spring quarter.

For the "summers only" option, all application materials must be received by June 1.

Financial assistance, such as associate-ships, are available. Applications for graduate associateships can be printed and sent from the school's Web page (<http://www.ohiou.edu/rsps/> under graduate assistantships).

Program Requirements

Requirements for each option vary depending on whether you select the thesis or nonthesis option. The M.S.P.E. thesis option requires 45 quarter hours of coursework, which includes six hours dedicated to the completion of the thesis. The M.S.P.E. nonthesis option requires a minimum of 50 quarter hours of coursework. If you select the non-thesis option, you are required to complete a capstone outcome assessment, such as a final project, written and/or oral comprehensive examinations or professional portfolio. Programs of study are planned with your academic advisor, taking into consideration your undergraduate preparation and professional goals.

Majors in physical education pedagogy or athletic administration who wish to coach may adopt a coaching education core. These courses are taken in addition to required courses in your major area of study.

Coaching requirements are:

- PESS 612 Applied Biomechanics of Sport and Physical Activity (4)
- PESS 655 Psychology of Coaching (3)
- PESS 688 Issues in Athletic Administration (4)

Plus two of the following courses:

- BUSL 565 Law of Sports (4)
- HCFN 660 Nutrition for Sports and Fitness (4)
- PESS 500 Women in Sport (3)
- PESS 508 The Black Athlete and American Sport (3)
- PESS 511 The Olympic Movement (3)
- PESS 640 Analyzing Performance in PE (3)
- SAFM 607 Problems of Competitive Athletics (3)

Other courses with approval of physical Education/sport sciences coordinator.

Athletic Administration. The athletic administration concentration is designed to provide you with coursework and appropriate experiences that prepare you for a multitude of employment opportunities in sport. The program focuses on preparing you for administration positions that involve interscholastic and/or intercollegiate athletics. An undergraduate major in physical education, sports management, or other related area is strongly recommended.

Concentration requirements are:

- PESS 602 Seminar on International Sports (3)
- PESS 606 Organization & Administration of Physical Education & Sport (5)
- PESS 609 Statistics for Sport Sciences (4)
- PESS 624 Risk Management in Athletics (3)
- PESS 642 Ethics in Sports (3)
- PESS 650 Practicum (1–5)
- PESS 688 Issues in Athletic Administration (4)
- PESS 691 Seminar (4)
- SAFM 607 Problems in Competitive Athletics (3) or SAFM 647 Athletic Fundraising (3)

Athletic Training. The athletic training program requires a summer admission with four consecutive quarter assignments to complete the degree. Partnership assignments begin during

the second summer term; thus, if you are accepted, you must be NATA-certified by your August assignment start date. In exchange for this partnership service, all accepted athletic training majors are guaranteed a one-year tuition scholarship and stipend.

Concentration requirements are:

- PESS 609 Statistics for Sport Sciences (4)
- RSAT 605 Muscle Testing and Function (4)
- RSAT 610 Orthopedic Assessment (4)
- RSAT 620 Therapeutic Exercise (4)
- RSAT 625 Therapeutic Modalities (4)
- RSAT 630 Injury Prevention Techniques (3)
- RSAT 635 Seminar in Sports Medicine Problems (3)
- RSAT 640 Administrative Aspects of Sports Medicine (3)
- RSAT 645 Emergency Management of Athletic Trauma (3)
- RSAT 650 Practicum (1–5)
- RSAT 691 Seminar (4)

In addition, you must complete 1,000 clinical hours, which are built into the program.

Physical Education Pedagogy. The physical education pedagogy curriculum is developed to improve teaching abilities and effectiveness with a focus on K–12 school- and collegiate-based physical education programs. Numerous projects and field-based teaching opportunities are featured each quarter. The program serves both experienced and inexperienced teachers; an undergraduate physical education degree is strongly recommended. You also have the opportunity to pursue coursework specific to coaching interscholastic, collegiate, and youth-oriented sports.

Concentration requirements are:

- PESS 504 History and Principles of Physical Education (4)
- PESS 606 Organization and Administration of Physical Education and Sport (5)
- PESS 609 Statistics for Sport Sciences (4)
- PESS 610 Curriculum in Physical Education (4)
- PESS 612 Applied Biomechanics of Sport and Physical Activity (4)
- PESS 624 Risk Management in Athletics (3)
- PESS 640 Analyzing Performance in Physical Education (3)
- PESS 642 Ethics in Sports (3)
- PESS 650 Practicum (1–5)
- PESS 691 Seminar (4)

Recreation Studies. The recreation studies concentration is designed to provide a comprehensive program that includes appropriate coursework and practical experiences in recreation. The program prepares you for a multitude of employment opportunities in the recreation profession.

Concentration requirements are:

- PESS 609 Statistics for Sport Sciences (4)
- REC 601 Contemporary Issues (4)
- REC 649 Administration of Community Recreation (4)
- REC 650 Practicum (5)
- REC 675 Adventure Programming (3)
- REC 691 Seminar (4)
- SAFM 670 Financial Administration of Sport Facilities and Programs (4)

Sports Physiology and Adult Fitness

The sports physiology and adult fitness program is designed to prepare you to work as a preventative and rehabilitative specialist (as certified by the American College of Sports Medicine, ACSM) in a variety of settings, including clinical, corporate, wellness/fitness, and educational sites. The concentration requires at least one full academic year with completion of an internship after three quarters of course work. There is no thesis option in this concentration; the final capstone assessment is successfully passing a comprehensive written examination.

Concentration requirements are:

- HCFN 660 Sport and Fitness Nutrition (4)
- PESS 514 Physiology of Exercise (4)
- PESS 515 Physiology of Exercise Lab (4)
- PESS 609 Statistics for Sport Sciences (4)
- PESS 616 Sports Physiology and Adult Fitness (4)
- PESS 617 Exercise Prescription (3)
- PESS 658 Cardiovascular Evaluation (4)
- PESS 661 Internship (5–15)
- PESS 691 Research Seminar (4)

Master of Science in Physiology of Exercise (M.S.P.Ex.)

The Master of Science in Physiology of Exercise is a two-year program that requires the completion of a master's thesis. A strong background in biological sciences, including organic chemistry, physics, calculus, human anatomy, and human physiology, is recommended.

Generally, the second year of graduate study involves primarily thesis research, writing, and completion of required courses and some electives.

Eligibility to Apply

You must meet the following requirements to be considered for unconditional admission to the School of Recreation and Sciences graduate program in exercise physiology:

1 Earned bachelor's degree in physical education, sport sciences, or an area related to your selected area of study from an accredited college or university.

2 Minimum overall undergraduate grade-point average (g.p.a.) of 3.0 on a 4.0 scale on last 90 quarter hours or last 60 semester hours.

3 Satisfactory Graduate Record Examination (GRE) scores.

If you do not meet the above standards, you may be admitted on a conditional basis and informed of the conditions you must meet before being accepted unconditionally. These courses may or may not apply toward your degree. If you are admitted on a conditional basis, you are not eligible for financial assistance.

Application

The following materials must be received before your application can be considered for admission:

1 Application found in back of this catalog (submitted in duplicate).

2 Graduate Record Examination (GRE) scores.

3 Official transcripts from each post-secondary institution attended. (You do not need to submit transcripts of coursework completed at Ohio University.)

4 A two-page typed biography that includes information about your background and experiences and how they relate to your career goals.

5 A resume of your professional work experience.

6 Three letters of recommendation using the forms found in the back of this catalog. At least one of your references must be an individual who can attest to your qualifications in your chosen field and one from an academic faculty member who can support your ability to produce successful academic work at the graduate level.

Submit your completed application packet to the Office of Graduate Student Services, Ohio University, Wilson Hall, Athens OH 45701-2979.

The biography, resume, and letters of recommendation should be sent directly to the graduate coordinator, School of Recreation and Sport Sciences, Ohio University, Research and Technology Center, Athens OH 45701-2979.

While applications for admission are accepted during all quarters, it is required that all applications for both admission and financial aid for the next academic year be received by March 1 unless indicated differently. Students applying for admission other than fall quarter must complete the application process by November 1 for winter quarter and February 1 for spring quarter. International students must also present TOEFL scores (minimum of 575 for consideration).

Financial assistance, such as associate-ships, are available. Applications for graduate associatehips can be printed and sent from our school web page (<http://www.ohiou.edu/rsps/> under graduate assistantships).

Program Requirements

Required courses in physiology of exercise are:

- PESS 514 Physiology of Exercise (4)
- PESS 515 Physiology of Exercise Lab (3)
- PESS 658 Cardiovascular Evaluation (4)
- PESS 691 Seminar (4)

PESS 695 Thesis (6)

BIOS 563 Cell Chemistry (4)

or CHEM 589 Basic Biochemistry (5)

or CHEM 591, 592 Intro to Biochemistry (8)

BIOS 654 Physiology of Work and Fatigue (3)

BIOS 670 Biostatistics I (5)

or EDRE 720 Educational Statistics (5)

or ISE 504 Applied Engineering Statistics (3)

or PESS 609 Statistics for Sport Sciences (4)

BIOS 542 Principles of Physiology I (3)

BIOS 543 Principles of Physiology II (3)

OCOM 630, Medical Gross Anatomy (10)
631

Master of Sports Administration (M.S.A.)

The sports administration/facility management curriculum is interdisciplinary, allowing you to concentrate in areas related to business, communication, journalism, management, marketing, and sports administration. An undergraduate major in any of these areas is desirable but not mandatory. Work experience and participation in athletic-related positions are advantageous to being admitted into this highly selective program. The sports administration/ facility management program requires completion of 55 hours of coursework including a five-hour internship. In addition, you must successfully complete a capstone assessment before graduation.

The curriculum listed in this catalog is likely to change beginning in the 2000-2001 academic year. Please contact the School of Recreation and Sport Sciences through our Web site or call 740-593-4666 for further information.

Eligibility to Apply

You must meet the following requirements for eligibility and consideration for unconditional admission to the School of Recreation and Sciences graduate program in sports administration and facility management:

1 Earned bachelor's degree from an accredited college or university.

2 Minimum overall undergraduate grade-point average (g.p.a.) of 3.0 on a

4.0 scale on last 90 quarter hours or last 60 semester hours.

3 Satisfactory scores on the Graduate Management Admission Test (GMAT), or Law School Admissions Test (LSAT).

Application

The following materials must be received before your application can be considered for admission:

1 Application found in back of this catalog (in duplicate).

2 Graduate Management Admission Test (GMAT), or Law School Admissions Test (LSAT) scores. If you are applying as part of the joint degree program with Capital Law School, you may submit LSAT scores; otherwise you must submit GMAT scores.

3 Official transcripts from each post-secondary institution attended. (You do not need to submit transcripts of coursework completed at Ohio University.)

4 A two-page typed biography that includes information about your background and experiences and how they relate to your future career goals.

5 A resume of your professional work experience.

6 Three letters of recommendation using the forms found in the back of this catalog. At least one of your references must be an individual who can attest to your qualifications in your chosen field and one from an academic faculty member who can support your ability to produce successful academic work at the graduate level.

Send your completed application; GMAT or LSAT scores; application fee; and transcripts to the Office of Graduate Student Services, Ohio University, Wilson Hall, Athens OH 45701-2979.

The biography, resume and letters of recommendation should be sent directly to the graduate coordinator, School of Recreation and Sport Sciences, Ohio University, Research and Technology Center, Athens, OH 45701-2979.

Application Deadline

Students are admitted for fall quarter only and must complete the application process by March 1. The final phase of the admissions process involves an on-campus interview at your expense. You will be notified of your selection for an interview and the scheduled date once all items listed above have been received.

International students are admitted for summer quarter only. You must complete the application process by February 1, including the presentation of your TOEFL scores (minimum of 575 for consideration). As enrollment is competitive, preference for international student admissions is given to applicants who are sponsored by sports organizations, colleges or universities, or government agencies. If you are applying from outside North America, you will be interviewed by telephone at your expense and will be notified of the date, time, and telephone number for the interview once all items listed above have been received.

Financial assistance, such as associate-ships, are available. Applications for graduate associatehips can be printed and sent from our school web page (<http://www.ohiou.edu/rsps/>) under graduate assistantships.

Program Requirements

Concentration requirements are:

BUSL 565 Law of Sports (4)

SAFM 607 Problems of Competitive Athletes (3)

SAFM 660 Internship in Sports Administration (5)

SAFM 691 Seminar (4)

The remaining coursework will be determined in consultation with your advisor based on your preparation and professional goals.

Courses

Athletic Training (RSAT)

518A Instructional Experience (1-5)

Prereq: perm.

600 Guided Independent Study (1-2, max 2)

Selected areas of study with written report based on research.

605 Manual Muscle Testing and Function (4)

Prereq: NATA certification; athletic training major. Focuses on the art and science of manual muscle testing. Emphasis placed on the effects of muscle imbalances and weakness on body alignment and function with preventive interventions being incorporated. *Deivert; Su; Y.*

610 Orthopedic Assessment (4)

Methods of objective evaluations of effects of neuromuscular impairment injuries and measurement of changes in neuromuscular functioning. 3 lec, 2 lab. *F; Y.*

611 Special Problems (1-6)

Individual research and experimentation of professional issues. Identifies pertinent problems and plans effective attack toward potential solution.

620 Therapeutic Exercise:

Theory and Application (4)

Advanced techniques in prevention, management, and rehabilitation of athletic injuries. 3 lec, 2 lab. *W; Y.*

625 Therapeutic Modalities:

Theory and Application (4)

Advanced techniques in the principles and practical skills of therapeutic modalities. 3 lec, 2 lab. *Sp; Y.*

630 Injury Prevention Techniques in Sports Medicine (3)

In-depth study of evaluating and developing conditioning techniques and programs for prevention of athletic injuries. *W; Y.*

635 Seminar in Sports Medicine Problems (3)

Thorough examination of problems that exist in sports medicine as reviewed by various allied health professions. *Sp; Y.*

640 Administrative Aspects of Sports Medicine (3)

Prereq: NATA certification; athletic training major. Provides the opportunity to develop decision-making skills, communication skills, and strategies for service delivery in various clinical settings (educational institution, clinic, hospitals). 3 lec. *Deivert; Su; Y.*

645 Emergency Management of Athletic Trauma (3)

Prereq: NATA certification; athletic training major. Focuses on the specialized care required for serious trauma and life-threatening athletic injuries. Advanced techniques of initial recognition, prehospital emergency care, treatment, and preparation for transportation are explored. 2 lec, 2 lab. *Deivert; Su; Y.*

650 Practicum (1-5, max 5)

Supervised work experience in various aspects of administration and operation of athletic training programs.

651 Medical Aspects (3)

Study of functional and structural changes in tissues and organs caused by athletic injury. *Carin; F; Y.*

691 Seminar (4)

Research and investigation in athletic training. Topics and problems suitable for thesis writing, methods of research, writing practice, and critical analysis of outlines for research study. *F; Y.*

Physical Education and Sport Sciences (PESS)

500 Women in Sports (3)

Examines the role of play, sports, and games in life of women. Explores place of women in sports world, and reflects on special attitudes and structures of women's sports. *C. Brown; Sp.*

504 History and Principles of Physical Education (4)

Prereq: major/minor. Origins and development of physical education and sport from time of primitive people through Greeks, Romans, Germans, English, and Americans; biological, psychological, sociological, and curricular principles underlying modern physical education program. *Cook; F; Y.*

508 The Black Athlete and American Sport (3)

Explores origins of black athlete's participation in American sport and examines role of black men and women in growth of American sport and physical activity during 19th and 20th centuries. *Cook; Y.*

511 The Olympic Movement (3)

Study of origin and development of games from Greek era to modern period. Meaning of Olympism in relation to contemporary summer and winter Olympiads explored. *Cook; Y.*

514 Physiology of Exercise (4)

Coreq: 515. Fundamental concepts describing reaction of organ systems to exercise; study of work produced by muscle. Special areas include sport conditioning, muscular fatigue, physiology, and nutrition in exercise; weight control and exercise; physical fitness; exercise and environmental stresses; review of recent research in exercise physiology and human performance. *Hagerman; F; Sp; Y.*

515 Physiology of Exercise Laboratory (3)

Prereq: BIOS 345. Coreq: 514. Lab experience to complement material covered in 514. *F; Sp; Y.*

518A Instructional Experience (1-5)

Prereq: perm.

521 Principles of Aging and Physical Activity (4)

Students develop knowledge and skills involving physical activities for older adults. Information concerning the effects of the aging process on physical activities, benefits of physical activities, physical activity instructional considerations, principles of physical activity programming, and physical activity strategies are presented. A lab component is included. *VanDerveer; Sp; Y.*

585 Advanced Perceptual Motor Development in Children (3)

Seminar in field of perceptual motor development in preschool and primary grade children. Special emphasis on practical application of theory and research findings to areas of movement performance and learning readiness. *Miller; Sp; Y.*

600 Guided Independent Study (1-2, max 2)

Selected areas of study with written report based on research.

602 Seminar on International Sport (3)

Review of selected physical education and sport programs in various countries and discussion of issues and problems related to international sport competition. *Cook; F; Y.*

606 Organization and Administration of Physical Education and Sport (5)

Theory and practice in organizing and administering various physical education, intramural, athletic, sport, and recreation programs at public school, college, and community levels. *Cook; Sp; Y.*

609 Statistics for Sport Sciences (4)

Review of descriptive statistics, introduction to use of computers, inferential statistics, class problems, using data collection, computer input, and statistical analysis. *Bullard, Mittlstaedt; F; W; Su; Y.*

610 Curriculum in Physical Education (4)

Consideration of curricular trends and theories for today and for future. Construction and development of curricula for elementary, secondary, or college and university levels. *Carr; Y.*

611 Special Problems (1-6)

Individual research and experimentation of professional issues. Identifies pertinent problems and plans effective attack toward potential solution.

612 Applied Biomechanics of Sport and Physical Activity (4)

Investigation of biomechanical principles involved in the performance of selected sports and physical activity. *Bullard; F; Y.*

616 Introduction to Sports Physiology and Adult Fitness (4)

Introduction to a common body of knowledge related to sports physiology and exercise leadership. Emphasis is on graded exercise stress test administration, basic electrocardiography, and laboratory physical performance tests. *Murray; F; Y.*

617 Principles of Exercise Prescription (3)

Prereq: 516. Study of the underlying principles regarding the prescription of exercise to not only the healthy individual, but also to the sedentary as well as the diseased individual. *Murray; W; Y.*

624 Risk Management in Athletics (3)

Legal approach to athletics, athletic injuries, and physical education as studied through investigation of concepts and principles that provide legal framework within which courts view cases bearing on athletics, athletic injuries, physical education, and recreation. *Higgins; W; Y.*

640 Analyzing Performance in Physical Education (3)

Methods of analyzing performance problems in physical education (process of analyzing performance problems will include identification of source of problem, specifications of solutions, intervention tactics, and evaluation of behavior change). *Carr; W; Y.*

642 Ethics in Sports (3)

Discussion and identification of ethical conduct in sport pertaining to prospective administrators, coaches, teachers, and officials. Focus on appropriate actions in conducting, organizing, teaching, and coaching activities. *Brown; Sp; Y.*

650 Practicum (1-5, max 5)

Supervised work experience in various aspects of administration of intercollegiate and interscholastic athletics.

652 Advanced Laboratory Techniques in Sport Physiology and Adult Fitness (3)

Prereq: 616, 617. Advanced laboratory techniques refining and integrating cognitive and practical/experiential skills used in sport physiology, adult fitness/cardiac rehabilitation, and clinical exercise physiology environments. 1 lec, 4 lab. *Murray; Y.*

655 Psychology of Coaching (3)

Analysis of psychological factors and principles with special reference to emotional, attitudinal, and personality problems of athletes. *Carr; Sp; Su; Y.*

661 Internship in Sport Physiology and Adult Fitness (5-15)

Prereq: major in sports physiology and adult fitness. Supervised professional work experience in affiliated sports physiology or clinical sites with the opportunity to serve in the dual capacity of exercise technician and/or exercise leader. Internships will be a minimum of 10 weeks and will be structured/designed to meet your interests. *Murray; S; Y.*

668 Topics in Cardiovascular Evaluation (4)

Prereq: 514/515/516 or BIOS 545/546. In-depth lecture in electrocardiography, as well as other noninvasive techniques used in assessing cardiovascular function. *Murray; W; Y.*

686 Motor Performance of the Exceptional Child (4)

Emphasizes skills and theory related to teaching physical education to children and youth who exhibit variety of handicapping conditions. Professional and advocacy responsibilities in planning and implementing psychomotor aspects of individualized education programs will be taught. *Miller; F; Y.*

688 Issues in Athletic Administration (4)

Selected issues in sport sciences are discussed. Course involves research reading, analysis, and written reports. *Y.*

690 Readings in Athletic Administration (3)

Prereq: perm. Required of all students entering graduate study in athletic administration who do not have an undergraduate degree in physical education, sports management, or similar major. Content includes readings in youth sport, school-based sport, the NCAA, facility design and management, Olympic sport, coaching, gender issues, sports marketing, finance, and governance issues. Students work independently and submit written summaries of selected readings. *D.*

691 Seminar (4)

Research and investigation in physical education and sport sciences. Topics and problems suitable for thesis writing; methods of research; writing practice; and critical analysis of outlines for research study. *F; W; Y.*

695 Thesis (1-15)

Prereq: perm.

Recreation Studies (REC)

518A Instructional Experience (1-5)

Prereq: perm. Supervised practice in organizing and teaching activities in college and recreational settings.

518B-2 Special Programs in Recreation (1-15)

Courses designed to provide the recreation major or professional unique experiences and instruction in specialized topics. Courses designed as short-term, mini-courses, seminars, or specialized workshops.

560 Understanding Leisure (4)

Designed to explore meaning, theories, and development of play from infancy through middle childhood. *King; Sp; Y.*

600 Guided Independent Study (1-2, max 2)

Selected areas of study with written report based on research.

601 Contemporary Issues (4)

Selected problems in recreation programs; research reading, discussion analysis, written reports. *W; Y.*

611 Special Problems (1–6)

Individual research and experimentation of professional issues. Identifies pertinent problems and plans effective attack toward potential solution.

649 Administration of Community Recreation (4)

Administration of public recreation services; programs and facilities; fiscal considerations including grant writing; and legal considerations. *Dingle; W; Su; Y.*

650 Practicum (1–5, max 5)

Supervised work experience in various aspects of administration of intercollegiate and interscholastic athletics.

675 Adventure Programming (3)

Principles and procedures involved in planning, organizing, and conducting various types of outdoor adventure activities in national/state/private facilities. *Dingle; Sp; Y.*

691 Seminar (4)

Research and investigation in recreation. Topics and problems suitable for thesis writing; methods of research; writing practice; and critical analysis of outlines for research study. *F; Su; Y.*

Sports Administration and Facility Management (SAFM)**600 Guided Independent Study (1–2, max 2)**

Prereq: major/minor. Selected areas of study with written report based on research.

607 Problems of Competitive Athletes (3)

Prereq: major/minor. Analysis of problems associated with athletic competition at all age and performance levels. *Kreutzer; Sp; Y.*

610 Athletic Administration Seminar (3)

Introduction to various aspects of intercollegiate/interscholastic athletic administration. Responsibilities of athletic director, business manager, sports information director, athletic trainer, ticket manager; facility construction and management, security, crowd control; and facility utilization are presented and discussed. *Higgins; Kreutzer; W; Y.*

611 Special Problems (1–6)

Individual research and experimentation of professional issues. Identifies pertinent problems and plans effective attack toward potential solution.

645 Facility Management and Programming (3)

Principles and requirements related to programming and managing various types of public facilities. *Franklin; W; Y.*

647 Athletic Fund Raising (3)

Techniques of fundraising to prepare individuals to assume the responsibility for programs of fundraising in different types of organizations, both public and private. *W; Y.*

650 Practicum (1–5, max 5)

Prereq: perm. Supervised work experience in various aspects of administration of intercollegiate and interscholastic athletics.

655 Sports and Sports Consumers (4)

Prereq: SAFM major. Introduction to fundamentals and dynamics of the relationships that exist among sports organizations and their varied consumers; and the application of these fundamentals to sports and sports related organizations. Primary focus on planning and implementing organizational strategies and programs to enhance relationships with consumers and consumer groups. *Kreutzer; W; Y.*

657 Sponsorship in Sports (4)

Prereq: 655. An analysis of the current factors and issues related to sports sponsorship, including sponsorship planning, sales and negotiations, and sponsorship proposals and evaluations. Students will prepare a comprehensive sponsorship plan for a sports or sports-related property. *Kreutzer; Sp; Y.*

659 Licensing in Sports (4)

Prereq: BU5L 565. A managerial approach to licensing sports products and services. Students will learn to move sports products and services through licensing channels from concept to project completion. *Sp; Y.*

660 Internship in Sports Administration (1–5)

Prereq: sports administration major. Supervised professional work experience in approved sports-oriented organization. *Kreutzer; F; W; Sp; Su; Y.*

665 Governance in Intercollegiate Athletics (4)

Prereq: 5AFM major. Introduction to structure, dynamics, and principles of governance for intercollegiate athletics. Focuses on institutions which are members of the National Collegiate Athletic Association (NCAA); however, discussion regarding other governing bodies may be included. *F; Y.*

670 Financial Administration of Sport Facilities and Programs (4)

Examines financial information necessary to perform the usual duties and responsibilities associated with sports facilities and programs. *M Brown; F; W; Y.*

691 Seminar (4)

Prereq: major/minor. Research and investigation in athletic administration. Topics and problems suitable for thesis writing; reviews of completed research, development of questionnaires, position papers, and evaluative instruments applicable in athletic administration. *Kreutzer; F; Y.*

Center for International Studies

Burson House

Josep Rota
Director

The Center for International Studies is the nexus for global and area studies and activities at Ohio University. The center's interdisciplinary teaching, research, publications, service, and outreach programs bring together faculty and students from all parts of the university—the social sciences, humanities, sciences and professional schools—in Athens and on the regional campuses. Ohio University established the Center for International Studies in 1964; it was founded on the broad belief that an appreciation of others' values and institutions increases mutual understanding, enriches individual lives, and prepares citizens and students for work in the global environment.

The Center for International Studies embodies Ohio University's commitment to international understanding and solidarity and to the development of knowledge and skills necessary for competition in a global marketplace of ideas and jobs. The Center seeks to advance its mission through interdisciplinary academic programs and activities; faculty development; the encouragement and promotion of research; the development of library resources; outreach to the community; the cultivation of solidarity with other peoples and cultures, particularly with the developing regions of the world; and the maintaining and strengthening of faculty area and international expertise in collaboration with other academic units. Through the Office of the Associate Provost for International Programs, the Center for International Studies coordinates Ohio University's international programs and activities.

The Center's African Studies Program has been designated a U.S. Department of Education National Resource Center since 1994. The Southeast Asia Studies Program also receives Title VI funding from the U.S. Department of Education. The Center's nationally known Monograph in International Studies series makes available more than 100 scholarly titles relating to Africa, Latin America, and Southeast Asia.

Visit our Web page at <http://www.ohiou.edu/~intsdept/>

M.A. Program in International Affairs

The Center's goal is to maintain and strengthen national benchmarks of excellence in area studies and studies of development policy and practice, while promoting the synergy that results from our unique combination of the two. Programs are centered on an interdisciplinary curriculum that combines the traditional foundations of the social sciences and the humanities with strategic linkages to the natural sciences and all of Ohio University's professional colleges. In support of the curriculum, programs emphasize utilization of new information technologies, the acquisition of professional skills, the development of language competency,

and the cultivation of abilities that lead to good professional practice. Upon graduation students receive a Master of Arts awarded by the Center for International Studies.

General Requirements

Students must complete a minimum of 70 credit hours (90 credit hours in Communication and Development Studies). At least 40 credit hours must be devoted to core courses. The remainder is used to build an individualized, professional skills minor. A mandatory two-hour course requirement for all programs, International Studies (INST) 500: Introduction to Graduate Study, is offered in the fall quarter.

Depending on the program, one of the following is required to complete the degree: a comprehensive written exam, a comprehensive oral exam, or a research/grant proposal. This ordinarily takes place in the last quarter of study excluding summer.

A thesis option also is available. The number of credits granted for the thesis (up to a maximum of 10) is determined by the student's advisory committee.

All students in the M.A. program must maintain a minimum grade-point average (g.p.a.) of 3.0. If the g.p.a. falls below this level, students will be placed on academic probation. If the g.p.a. is not raised by the end of the following term, the student will not be permitted to continue in the program. University policy prohibits awarding any type of financial assistance to students on academic probation. Should a student receive more than two grades below a "B," the director reserves the right to drop him or her from the program. A grade below "C" will not count toward the degree requirement.

Language Proficiency

Each student is required to demonstrate an acceptable level of achievement in a foreign language appropriate to the area of concentration. For non-European languages, this may be accomplished either by a) satisfactorily completing a minimum of one academic year in one of the following languages: Arabic, Chinese (Mandarin), Indonesian/Malay, Japanese, Siswati, or Swahili, or b) taking an examination in a language not taught at Ohio University or demonstrating an acceptable level of achievement on an examination administered by other recognized testing agencies. For students in concentrations offering a European language, an intermediate level of proficiency is required

Note: Thai and Vietnamese language courses are offered on demand. Latin American Studies offers Portuguese through the enhanced language skills option. Southeast Asian Studies requires two years of coursework or its equivalent in a Southeast Asian language. Language courses cannot be included in the degree hour requirement.

Admission

Persons interested in applying for admission must have a bachelor's degree from an accredited university and a minimum grade point average of 3.0 on a 4.0 scale or its equivalent, plus the following requirements:

- Two completed applications
- Two official college transcripts from an accredited college
- \$30 non-refundable application fee (applications will not be processed without fee)
- Affidavit of support with supporting documentation (international applicants only)
- Three letters of recommendation (at least two from people who can judge academic abilities)
- Autobiographical sketch
- Statement of purpose (a two-page statement indicating career goals and how the program of study chosen will help meet those goals. Be specific in discussing the aspects of your personal and academic background that may lead to success in the area of study chosen)
- A curriculum vita
- TOEFL scores (international applicants only)

Things to keep in mind:

- 1** Each program has its own admission committee. Be sure to specify on the application the program for which you are applying
- 2** Individual files will not be reviewed until all relevant documents have been received.

3 Deadline for application and supporting documents is March 1 for the following fall quarter; November 1 for winter quarter; February 1 for spring quarter; April 15 for summer quarter.

4 Communication and Development Studies, International Development Studies, and Southeast Asian Studies admit only in the fall quarter (September) with a firm application deadline of March 1.

5 All International students will be required to take an English proficiency test (which includes composition) when they arrive on campus. The test can be waived if you hold a degree from an American university. If the level of proficiency is not at the 550 (paper test) or 213 (computer test) level you must enroll in the Ohio Program of Intensive English until you reach the required level. Financial aid cannot be used to pay for English language courses.

Financial Aid

The five programs under the Center for International Studies annually offer some financial assistance to students. Aid is awarded competitively on the basis of merit including previous academic performance or post-graduation professional or other work experience. Programs also look for geographical, cultural, linguistic and other forms of diversity so that the group of students collectively strengthens the program. The deadline is March 1. The criteria used to award aid are:

- A good undergraduate record
- Strong letters of recommendation
- Appropriateness of background to program of study
- Work experience
- Special skills

Curricula and Courses

Degree programs are interdisciplinary and designed to give students freedom to choose courses from a number of fields that best fulfill their academic and professional objectives. Following are brief descriptions of the individual program requirements and a list of core courses appropriate to each area of concentration.

African Studies

The African Studies Program at Ohio University, a U.S. Department of Education Title VI National Resource Center for Africa, provides students, scholars, and members of the broader community opportunities to develop their understanding of this important world region. Facilities for research and language instruction, as well as formal degree studies, are available through the program. Students may earn a Master of Arts in International Affairs degree with a major in African Studies through the Center for International Studies.

The African Studies Program grew out of the excitement emanating from the decolonization of the continent in the mid-1960s and the awareness of the important role Africa could play in U.S. and world affairs. Today the multidisciplinary nature of the program allows students to build a course of study reflecting Africa's contemporary reality. Themes include the socioeconomic development of the continent in the context of Africa's grand cultural and historical traditions, ecological sustainability, and the African family. Students may also view the study of Africa as an excellent case-study of the process of social change in the modern world.

The Institute for the African Child promotes and coordinates research and advocacy for the world's most marginalized of population groups—the children and youth of the African continent.

The Ohio University Board of Trustees established the Institute for the African Child in 1998. This new initiative is designed to expand the conversation among African Studies scholars, to include those in the professional fields of communication, education, health and human services, and medicine, to work together on issues that affect Africa's children. Clearly there are no one-dimensional problems in the field of children and youth issues in Africa. Our intent is to provide a new cross-disciplinary venue for conferences, fellowships, and collaborative research that will lead to improvement in the living conditions of this important population. The establishment of the Institute for the African Child is also a new opportunity to raise awareness of the impact of the health-education-information nexus on minority children in Africa's Diasporas.

Degree Requirements

Students are required to complete a minimum of 70 quarter hours of course work. Ohio University departments offering African Studies core courses include Anthropology, African American Studies, Biological Sciences, Business, Communication, Economics, Education, Environmental and Plant Biology, Geography, History, International Studies, Linguistics, Nutrition, Philosophy, Political Science, and Women's Studies. Students may also combine courses in Art History, Literature and Philosophy for an African Humanities component of the interdisciplinary course distribution.

Proficiency in an African language is an important element of the African Studies degree and is seen as an essential tool for understanding the culture and working on the continent. The requirement can be fulfilled through a satisfactory FSI score, completion of the proper course work, or evidence of fluency in an African language.

African languages offered at Ohio University include Arabic, Siswati, and Swahili. A wide variety of languages also are available through Ohio University's participation in the Summer Cooperative African Language Institute (SCALI), a nine-week intensive summer language program.

FLAS Fellowships

The African Studies Program is pleased to offer Foreign Language and Area Studies (FLAS) fellowships. FLAS fellowships are open to new and continuing graduate residents of the U.S. Fellows receive a stipend of \$10,000 plus tuition. FLAS fellows are required to study an African language and carry a full-time academic load of 15–18 graduate units per quarter. Competitive applicants demonstrate a strong Africa career and/or research interest. Applicants should indicate in their "statements of purpose" how the African language study would enhance their research/career goals.

Core Courses

AAS 530	Social Theories of Underdevelopment
AAS 532	Third World National Movements
ANTH 551	Political Anthropology
ANTH 557	Anthropology of Religion
AH 532	West African Art
AH 533	Central African Art
ARAB 571	Elementary-Intermediate Arabic
ECON 551	Agricultural Development
ECON 555	African Economic Development
EDCI 505	Comparative Cultures and Education
EDCI 506A	Education and Development in Africa
EDCI 508	Poverty, Education, and International Development
SISW 571	Elementary-Intermediate Siswati
SWAH 571	Elementary-Intermediate Swahili
GEOG 531	African Thematic Geography
GEOG 532	Africa: Regional Approaches
GEOG 684C	Seminar in Regional Geography: Africa
HIST 535	History of Women in the Middle East
HIST 535A	Middle East to 1800
HIST 535B	Middle East Since 1800
HIST 536B	North Africa Since 1914
HIST 538	History of West Africa
HIST 541	Colloquium: African History
HIST 541B	Traditional Africa
HIST 541C	Modern Africa
HIST 542A	South Africa to 1899
HIST 542B	South Africa Since 1899
HIST 640	Seminar in African History
HCFN 525	Readings in Food and Nutrition
HCFN 526	World View of Nutrition
INST 610A	Seminar in African Studies
PHIL 572	Islam
PHIL 578	African Philosophy
POLS 541	African Politics
POLS 563	The United States and Africa
POLS 590	Africa and the OAU

Communication and Development Studies

Communication and Development Studies is jointly administered by the School of Telecommunications and the Center for International Studies. The curriculum emphasizes the use of communication to promote and support positive social development. The program of study includes interdisciplinary perspectives on national development, area studies, and training in applied research methods. Students choose an area of specialization from a variety of disciplines, such as campaign design, conflict resolution, social marketing, distance education, entertainment-education, environmental studies, new information technologies, participatory research for development, tropical public health, and radio, television and multi-media production. Students must also demonstrate proficiency in a language other than English.

Degree Requirements

The Communications and Development Studies Program has a flexible curriculum that allows students to enroll in courses offered by various schools and departments across the university. The curriculum is divided into concentrations of Communication, Geographic Area Studies, Individual Specialization, Development, and Research Tools.

In the second year, students design and execute a communication campaign. A field study or internship also is required. A student must demonstrate proficiency in a language applicable to the geographic area of study. Students normally require two years to complete the 90-credit-hour minimum.

Course Concentration

Six courses in telecommunications
Four courses in area of specialization
Four courses in area studies (including INST 500)
Three courses in development
Two courses in research methods or information processing skills
Field Study or Internship

Telecommunications Component

TCOM 601	Introduction to Mass Communication
TCOM 602 or TCOM 603	Quantitative Research Methods
TCOM 765	Communication and National Development
TCOM 770	Mass Communication Theory

Plus any three of the following courses:

TCOM 563	New Technologies
TCOM 767	Comparative Systems of Telecommunications
TCOM 768	International Telecommunications
INCO 510	Cross-Cultural Communication
INCO 710	Communication and Information Diffusion

Area studies component

Other courses can be considered after consultation with the director of the program. See course lists for Southeast Asian Studies, African Studies, and Latin American Studies.

Development Component

See Development Studies core list.

Research and Information Processing Tools

Research and information processing courses are offered in several departments. The following list is representative of the courses offered.

CS 556	Software Design and Development
GEOG 579	Advanced Remote Sensing
TCOM 568	Action Research
TCOM 759	Audience Research
EDCI 610	Rapid Rural Appraisal
INCO 530	Communications and the Campaign
JOUR 507	Electronic Publishing
JOUR 891	Seminar in Content Analysis
VICO 512	Advanced Informational Graphics
VICO 514	Desk Top Publishing
VICO 571	Digital Imaging

Students are encouraged to acquire broadcasting experience through the informal "broadcasting for development" laboratory. TCOM 610: Introduction to Audio and Visual Production is a prerequisite for participation.

Admission is in the fall quarter only (September)

International Development Studies

Through the Center for International Studies, Ohio University offers a program leading to the Master of Arts in International Affairs (MAIA) degree in International Development. The program is designed for those who have background and interest in the Natural Sciences (including Biological, Health, and Environmental) or Social Sciences, and who wish to incorporate one of these disciplines into the field of international development.

The program provides a broad perspective examination of issues related to growth and change in developing countries. A multi-disciplinary approach focuses on combining theory, practical application, research, and implementation skills to produce graduates who are catalysts for international development.

Students in International Development Studies build upon a core curriculum by specializing in one of three disciplinary concentrations:

International Development and Health

As expressed in the United Nations Declaration of Human Rights, health is a basic human right that resides within the context of human and social development. Because it reflects wider social, economic, and political influences, health should be approached in an integrated manner. The concentration in International Development and Health explores global health problems that affect developing nations. It provides students with an understanding of the field of health and international development while considering the important contribution that a healthy population makes to its own social and economic development process.

International Development and the Environment

Environmental problems and degradation pose a growing threat to the well being of people throughout the world. Workable solutions must focus on how humans and their social and economic interests interact with the resources of the natural environment. The concentration in International Development and the Environment is designed to provide students with an understanding of how people perceive and utilize the environment and how various processes involving the relationship between human beings and their surroundings either damage or protect the environment. This program challenges and prepares professionals to take action in response to environmental issues facing developing countries.

International Development and Social Sciences

There are numerous economic, environmental, social, and political challenges facing developing countries today. International development becomes a vast multidisciplinary area of concern and action and embraces a multitude of approaches. The International Development and Social Sciences concentration prepares students to study and analyze a broad scope of issues facing developing nations today within the conceptual framework of economics, political science, sociology, anthropology, and geography. Particular attention is paid to courses and development approaches that are designed to serve and enhance the capability of communities to further their own development.

Degree Requirements

- 1 70 hours approved coursework including:
 - 20 hours core courses
 - 10 hours methods
 - 15 hours development electives
 - 25 hours disciplinary concentration
- 2 Language proficiency
- 3 Preparation of grant proposal or thesis. Each student is required to complete either a grant proposal or thesis. Candidates choosing the proposal option will develop a grant proposal addressing a need in a particular developing region of the world. Candidates who choose the thesis option are expected to complete a course of study that culminates in a scholarly work of publishable quality.

Core Courses

The program core is structured around a progressive series of pro-seminars, colloquia, and courses in development for 20 credit hours. These courses deal with concepts, issues, and methods of development and draw on the worldwide interests and experiences of students and expert faculty. The courses listed under "methods" and "development" reflect the spirit of the requirements; other courses may apply as well.

INST 500	Introduction to Graduate Study
GEOG 539	Geographic Patterns of Developing Nations
INST 690	Pro Seminars and Colloquia in Development

Methods Courses (minimum 10 credit hours)	
CS 590	Computer Science for Non-Majors
EDRE 501	Introduction to Research Method
ECON 501	Statistical Foundations
GEOG 571	Quantitative Methods
POLS 582	Quantitative Political Analysis
PSY 520	Elementary Statistics
SOC 654	Social Research Methods
TCOM 602	Quantitative Research
TCOM 603	Qualitative Research

Development Courses (minimum 15 credit hours)

AA5 530	Social Theories of Underdevelopment
ANTH 571	Ethnology
ECON 550	Economics of Development
EDCI 508	Poverty, Education, and International Development
GEOG 680	Third World Development and the Environment
POLS 540	Politics of Developing Areas
SOC 518	Third World Development

Disciplinary Concentrations (minimum of 25 credit hours)**Health**

HCFN 525	Readings in Food and Nutrition
HCFN 526	World View of Nutrition
HCFN 529	Community Nutrition
HCFN 533	Food Sanitation and Safety
HCFN 590	Human Nutrition
HCFN 610	Maternal and Child Nutrition
HLTH 512	International Health Programs
HLTH 527	Health of Women
HLTH 620	Bioethics in Health Care
HLTH 630	Epidemiology in Health Planning
MICR 511	General Microbiology
MICR 518	Epidemiology
MICR 544	Tropical Disease Biology
MICR 682	Medical Entomology
MICR 541A	Parasitology
PSY 715	Psychology of Human Differences
SOC 525	Sociology of Food Production

Environment

ANTH 579	Human Ecology
BIOS 581	Conservation Biology
BU5L 570	Environmental Law
ECON 513	Economics of the Environment
ECON 514	Natural Resource Economics
GEOG 517	Landscape Ecology
GEOG 521	Population Geography
GEOG 538	Geography of Southeast Asia
GEOG 540	Environmental Impact Analysis
GEOG 544	Agricultural Ecosystems
GEOG 547	Resource Management
GEOG 550	Land Use Planning
GEOG 553	Environmental Planning
GEOG 555	Geography of Latin America

GEOG 680	Third World Development and the Environment
PBIO 521	Agricultural Ecology
PBIO 522	Tropical Ecology
PBIO 525	Plant Ecology
POLS 555	Environment and Natural Resource Policy
POLS 556	International Organizations
SOC 525	Sociology of Food Production

Social Sciences

A very large number of courses in diverse areas fall within this disciplinary concentration. Many thematic groups of courses are possible: Business, Culture, Communication, Economic Policy, Education, Gender, Politics/Public Policy, as well as area studies in Africa, Latin America, and Southeast Asia.

Certificate Programs

While pursuing the MA degree in International Studies, it may be possible to fulfill the requirements of one or more of the available certificate programs which include Conservation Biology, Contemporary History, Gerontology, Health Policy, and Women's Studies.

Internships

Internships are strongly encouraged. Such an experience with a domestic or international development organization allows the student to put into practice what has been learned from the program. Modest funds are available, on a competitive basis, to support local internships and research travel.

Entry is only available in the FALL Quarter (September).

Latin America

This interdisciplinary program allows the student to explore the cultural, institutional and structural realities of Latin America in depth and is designed for individuals who wish to expand their expertise regarding this important world region.

The program maintains solid teaching and library strength concerning both South and Central America. In regard to South America, it has strong institutional relations with—and faculty interest in—Brazil and Ecuador, and excellent library holdings for the whole region. It is especially known, however, for its strength in the area of Central America, where strong faculty interests and numerous publications are informed and enriched by an outstanding library collection. Among other things, the library features a large and varied microfilm/fiche collection of U.S. diplomatic records. Since 1997, it is the only official depository collection of Guatemalan government publications in the United States.

The Latin American Studies Program is actively career oriented. Over four-fifths of its graduates find careers in or related to Latin America in areas such as teaching, non-governmental organizations, government service, business, and communication. The special, second Iberian language option, as well as the skills minor, greatly enhances graduate's employment options. In addition, the program works to find its candidates Latin America-related internships in Washington, other cities in the United States, and in Latin America. Participation in internships is encouraged and earns academic credit towards the 73-hour graduation requirement.

Degree Requirements

The program is designed to allow students to acquire or expand multidisciplinary knowledge, expertise and language skills concerning Latin America. Students must complete seventy-three credit hours of course work including forty in explicitly Latin American-focussed material, twenty-five in a "skills minor" (a non-Latin American theme or discipline), two three-hour seminars, and one two-hour introduction to graduate studies. In addition, they must be competent in at least one of the region's Iberian languages.

Enhanced Language Skills Option: To compliment the program's stress on both Spanish and Portuguese Latin America-and since over eighty percent of our students enter with competency in one of the two Iberian languages-the latter are urged to acquire competency in the other language by taking either second year Spanish or accelerated Portuguese. Upon passing a competency exam in the second Latin language, fifteen hours of credit toward the graduation requirement is given.

Core Courses

AH 531	Pre-Columbian Art
ANTH 545	Gender in Cross-Cultural Perspective
ANTH 566	Cultures of the Amazon (The Amazon)
ANTH 567	South American Prehistory
ANTH 570	Mexican/Central American Prehistory
ANTH 583	Cultures of Latin America
ECON 554	Latin American Economic History
ECON 574	Economics of Latin America
GEOG 535	Geography of Latin America
GEOG 684A	Seminar in Regional Geography: Latin America
HIST 523A	Latin America: The Colonial Era

HIST 523B	Latin America: The 19th Century
HIST 523C	Latin America: The 20th Century
HIST 524	Seminar U.S./Latin America Relations
HIST 525	Lecture U.S./Latin America Relations
HIST 526	Dictatorships in Latin America
INST 601	Seminar in Development
INST 610B	Seminar in Latin America
INST 695	Thesis
POLS 534	Government & Politics in Latin America
POLS 535	Revolution in Latin America
POLS 536	The Politics of Brazil
POLS 579	Latin American Political Thought
POLS 590	Studies in Government: U.S. Policy in Latin America
SOC 508	Latin American Society
SOC 518	Third World Development
SPAN 539	Modern Spanish Usage
SPAN 543	Survey of Spanish American Colonial Literature
SPAN 544	Survey of Spanish American 20th Century Literature
SPAN 547	Themes from Spanish American Prose
SPAN 548	Contemporary Spanish American Literature
SPAN 560	Spanish American Civilization and Culture
SPAN 601	Seminar on Spanish American Literature
TCOM 765	Communication and National Development

Southeast Asia Studies

The rich cultures, traditions and opportunities of Southeast Asia are the focus of an interdisciplinary program that offers a master's degree and supports doctoral studies that include an emphasis on Southeast Asia. Courses in professional fields such as development studies, education, international business and management enrich the options. Dual degrees are available in some areas, including the MBA.

The graduate program benefits from a dedicated faculty with expertise in anthropology, communications, economics, geography, history, linguistics, management, philosophy, political science, and sociology. An extensive Southeast Asia library collection enhances the program's distinctive opportunities with an elaborate collection of insular SEA materials as well as an Overseas Chinese Documentation and Research Center.

Students entering the program usually are interested in careers in Foreign Service, government, non-governmental organizations, business, research, and university teaching.

Degree Requirements

The Southeast Asia Studies Program has a flexible curriculum which allows students to enroll in courses offered by various schools and departments across the University. The curriculum is divided into concentrations of Anthropology, Business Management, Geography, History, International Studies, Literature, Philosophy, Political Science and Telecommunications.

The Master's Program consists of a minimum of seventy credit hours (excluding language study) in at least three disciplines. Forty-five credit hours come from core Southeast Asia courses, the remainder from such disciplines as education, journalism, plant biology, and TOEFL.

An important element within the Southeast Asia program is proficiency in a Southeast Asian language. Two years of course work or its equivalent in a vernacular Southeast Asian language is required of non-native speakers. The Indonesian language is taught in a course-based format through the advanced level. In addition a new Critical Language Program coordinated by the Department of Linguistics makes it possible to offer other Southeast Asian languages on demand, including Thai, Vietnamese, and Malaysian, among other possibilities.

The course work (excluding language study) may be completed in fifteen months. The course of study concludes with a comprehensive written examination given during the last term of the student's program. A thesis option is available in lieu of the comprehensive examination.

Courses

ANTH 585	Cultures of SEA
ANTH 586	Problems in SEA Anthropology
ECON 573	Economics of SEA
GEOG 538	Geography of SEA
HIST 544A	History of the Malay World
HIST 544B	History of Burma and Thailand
HIST 544C	History of Vietnam
HIST 545A	History of SEA to 1750
HIST 545B	SEA 1750-1945
HIST 545C	SEA 1945-present
INDO 540	Traditional Literature of SEA
INDO 545	Modern Literature of SEA
INST 550	Focus on Malaysia
INST 590	Tun Razak Seminar

MGT 691	Seminar in SEA Business
PBIO 569E	Tropical Plant Biology
PBIO 569F	Agricultural Plant Ecology
PHIL 570	Hinduism in SEA
PHIL 571	Seminar on Buddhism in SEA
PHIL 572	Islam in SEA
POLS 547A/B	Government and Politics of SEA
POLS 648	Seminar on Politics in SEA
TCOM 569P	Media and Popular Culture of SEA

Additional courses are available in business and management, education and gender studies, philosophy/religion, sociology, and telecommunications.

Southeast Asian Languages

Indonesian and Thai are supported on campus, with Vietnamese anticipated. A variety of languages are also available through Ohio University's participation in the Southeast Asian Studies Summer Institute (SEASSI), a nine-week intensive summer language program.

FLAS Fellowships

The Southeast Asia Studies Program is pleased to offer Foreign Language and Area Studies Fellowships. FLAS Fellowships are open to new and continuing graduate residents of the U.S. Fellows receive a stipend of \$10,000 plus tuition. FLAS Fellows are required to study a Southeast Asian language and carry a full-time academic load of 15-18 graduate credits per quarter. Competitive applicants demonstrate a strong Southeast Asian career and/or research interest. Applicants should indicate in their "statements of purpose" how Southeast Asian language study would enhance their research/career goals.

Entry is only available in the Fall quarter (September).

International Studies Courses (INST)

S00 Introduction to Graduate Studies (2)
Interdisciplinary introduction to graduate study including research methodologies and nature of area studies. *F, Sp, Y.*

S50 Focus on Malaysia (5)
Introduction to geographical, historical, demographic, cultural, and political settings of Malaysia within the wider context of Southeast Asia. A survey of the historical development of Malaysia with emphasis on the period from the Second World War. The Constitution of the Federation of Malaya 1957 and subsequently the Constitution of Malaysia 1963 are discussed. The course will focus on the National Education Policy, the National Language Policy, the formation of Malaysia, and the New Economics Policy. *Razak Chair holder; W, Y.*

S90 Tun Razak Seminar Southeast Asia Studies (5)
Designed to enable the holder of the Tun Abdul Razak Chair to present his/her particular specialization. This means the content of the course could be different from year to year, depending on the discipline of the holder. The focus of the course will be on Malaysia as well as other parts of Southeast Asia. *Razak Chair holder; Sp, Y.*

601 Seminar in Development (S)
Interdisciplinary investigation into selected problems of development. Intended to provide interdisciplinary perspective into nature of sociological, political, economic, and psychological change in Africa, Asia, and Latin America. *W, Su; D.*

610A,B,C Seminar in Area Studies (4-5)
Selected multidisciplinary topics in African, Latin American, or Southeast Asian Studies. *W, Sp.*

690 Independent Study (1-5)
Prereq: perm. *F, W, Sp, Su.*

695 Thesis (1-10)
Prereq: perm. *F, W, Sp, Su.*

Individual Interdisciplinary Programs

Office of Graduate Student Services
Wilson Hall, College Green

Gordon Schanzenbach
Director

Prospective graduate students with demonstrated ability and intellectual maturity may apply for admission into the Individual Interdisciplinary Program (IIP) at either the master's or doctoral level. Entry into the program requires unconditional admission to graduate study. You should have achieved at least a 3.3 undergraduate g.p.a. to pursue a master's degree in IIP, and/or a 3.6 graduate g.p.a. to pursue the Ph.D. degree in IIP. You may also have to provide official test scores such as GRE, GMAT, or MAT. The IIP requires that you, with the assistance of your advisory committee, develop a program of study that includes a minimum of three emphasis areas, each in a different department or school. At least two of the departments or schools must offer graduate degrees at the degree level sought.

At the master's level, the minimum requirements include 15 hours of course credit in each area of emphasis, plus a final project (thesis, performance, etc.) acceptable to your advisory committee. The credit hours required for the final project will be determined by the committee. You will be required to meet the minimum requirements of the assigned college for the master's degree.

At the Ph.D. level, no fixed minimum of course credit is imposed beyond that associated with the residency requirement (three consecutive quarters in a full-time equivalent status); however, a practical minimum is 135 credit hours beyond the bachelor's degree or 90 beyond the master's degree. You are required to meet the minimum requirements of the assigned college for the doctoral degree.

The IIP is administered through the Office of Graduate Student Services; address inquiries to the director of the Individual Interdisciplinary Program at that office. Upon receipt of the inquiry, the office will send the appropriate application forms to you. In addition to the standard application forms, three letters of recommendation, test scores required by the departments or schools participating in the program of study, two official transcripts from each postsecondary school attended, and the application fee, you must submit (1) a statement (not to exceed two pages) describing your goal and rationale for pursuing an IIP degree, including the reasons why the degree goal is not available through an

existing advanced degree program at Ohio University (this procedure requires that you be familiar with the possibilities described in this catalog); and (2) a tentative plan of study.

After all application documents are received, the director of the Individual Interdisciplinary Program determines whether (1) your qualifications are minimally acceptable, (2) the university's capabilities and your goals are compatible, and (3) the proposed program is unavailable in an existing format in an existing academic unit.

If these requirements are satisfied, the credentials are forwarded to those chairing the graduate committee of each department or school involved for evaluation and recommendations from qualified faculty. If the recommendations from the departments, schools, and academic college are positive, you are admitted to the program and an advisory committee is appointed. The committee is responsible for preparing the program requirements, periodically reviewing your progress, administering comprehensive examinations, and directing the final project or dissertation. You are required to follow the degree guidelines and meet the minimum requirements of the assigned college for the degree level sought.

Application materials for fall quarter must be received by March 1. Application materials for other quarters must be received three months before the beginning of the quarter of entry requested.

College of Osteopathic Medicine

Grosvenor Hall, Irvine Hall, Parks Hall, O'Bleness Memorial Hospital, Technology & Enterprise Building, and Centers of Osteopathic Regional Education sites throughout the state

Barbara Ross-Lee, D.O.
Dean

The university offers a program leading to the Doctor of Osteopathic Medicine (D.O.) degree through its College of Osteopathic Medicine. Doctors of Osteopathic Medicine practice in all branches of medicine and surgery, but most are family-oriented primary care physicians. The college was established by the Ohio General Assembly in 1975 with the mission of training osteopathic family physicians for underserved areas of Ohio.

The College of Osteopathic Medicine has an enrollment of about 400 students in its four-year curriculum. All applicants must take the Medical College Admission Test. Successful applicants demonstrate a high undergraduate grade-point average and have completed coursework in biology, organic and general chemistry, physics, English, and the behavioral sciences.

Medical students at Ohio University study in one of two tracks—a new Clinical Presentation Continuum (CPC) curriculum, or a Patient Case Continuum (PCC) curriculum. Both curriculums view medical education as an organized building process that extends from the first day of medical school through residency training and beyond. The CPC curriculum provides students with opportunities to learn the basic science fundamentals of medicine in an integrated, clinically relevant environment. This faculty-directed curriculum uses the most common and/or important symptoms that patients present to primary care providers as its organizing focus. The PCC curriculum is a student-directed approach that uses a case-based learning environment and places emphasis on small group discussions, case analysis, collaborative learning, and problem solving as its primary educational tools. Students may choose which of the two curriculums is best suited to their individual learning style.

For further information, write for a copy of the College of Osteopathic Medicine Catalog and other admissions material. Address inquiries to Admissions, Ohio University College of Osteopathic Medicine, Grosvenor Hall 102, Athens OH 45701-2979, or call 1-800-345-1560 (for medical school inquiries only).

Departmental Faculty

The following listings were submitted by the dean's office in each college in May 1999 and verified in the provost's office. The regional campus faculties are listed after the Athens campus faculty.

Accountancy

O'Bleness Prof: Florence C. Sharp, Ph.D., *U. of Illinois*.

Prof: Glenn E. Corlett (dean), J.D., *Ohio State U.*; Leon B. Hoshower, Ph.D., *Michigan State U.*; E. James Meddaugh, Ph.D., *Pennsylvania State U.*; Ray G. Stephens (director), D.B.A., *Harvard U.*

Assoc. Prof: James S. Cox, (emeritus, part-time), Ph.D., *U. of Pittsburgh*; David P. Kirch, Ph.D., *Pennsylvania State U.*; David L. Senteney, Ph.D., *U. of Illinois*; Donald V. Stuchell (emeritus, part-time), M.A.S., *U. of Illinois*.

Asst. Prof: Yining Chen, Ph.D., *U. of South Carolina*; Carol A. Hilton, Ph.D., *U. of Arkansas*.

Instr: Olin Adams III, M.B.A., *Mount St. Mary's College*.

Aerospace Studies

Prof: Jeffrey S. Fischer (chair), M.S.A., *Central Michigan U.*

Asst. Prof: Stephen Davis, M.S., *Bloomsburg State College*; Steven Falls, M.S., *U. of Louisville*; Daniel Groner, M.S., *U. of Florida*; Margaret Herring, M.A., *U. of Oklahoma*.

African American Studies

Prof: Francine C. Childs, Ed.D., *East Texas State U.*

Assoc. Prof: Robert Rhodes, M.A., *U. of Cincinnati*, and M.S., *Atlanta U.*; Vattel T. Rose (chair), Ph.D., *U. of Minnesota*.

Instr: O. Funmilayo Makarah, M.A., *U. of Rochester*.

Art

Prof: Power Boothe (director), B.A., *Colorado College*; Joseph Bova, M.A., *U. of New Mexico*; Abner Jonas (emeritus, part-time), M.F.A., *U. of Iowa*; David R. Klahn, M.F.A., *U. of Wisconsin*; Ronald Kroutel (emeritus, part-time), M.F.A., *U. of Michigan*; Mary Manusos, M.F.A., *U. of Wisconsin*; Charles McWeeny, M.F.A., *Oklahoma U.*; Karen Nulf (emerita, part-time), M.A., *Michigan State U.*; Judith Perani, Ph.D., *Indiana U.*; Gary Pettigrew (emeritus, part-time), M.F.A., *Ohio U.*; Daniel Williams (part-time), M.A., *U. of Oregon*.

Assoc. Prof: Don Adleta, M.F.A., *School of Design, Switzerland*; Marilyn Bradshaw, Ph.D., *Indiana U.*; Carolyn Cardenas, M.F.A., *Drake U.*; Aethelred Eldridge, M.S.D., *U. of Michigan*; Michael Harper (part-time), Ph.D., *U. of North Carolina*; T. Hipp, E.D.D., *U. of North Carolina, Greensboro*; Joseph Lamb, Ph.D., *U. of California,*

Santa Barbara; Robert Lazuka, M.F.A., *Arizona State U.*; Duane McDiarmid, M.F.A., *Florida State U.*; Robert Peppers, M.F.A., *Ohio U.*; Marilyn Poeppelmeyer, M.F.A., *SUNY, Buffalo*; Brad Schwieger, M.F.A., *Utah State U.*; Gary Schwindler (part-time), Ph.D., *U. of California, Los Angeles*.

Asst. Prof: Barbara Bays, Ph.D., *Indiana U.*; Mary Campbell, M.F.A., *U. of California, Davis*; Christine Heindl, M.F.A., *Cornell U.*; Anita E. Jung, M.F.A., *U. of Wisconsin*; Yoon Soo Lee, M.F.A., *Western Michigan U.*; Daniel Loewenstein, M.F.A., *U. of California, San Diego*; Ann Matlock, M.F.A., *U. of Texas*; Thomas Patin, M.F.A., *Colorado State U.*; Kiyui Shen, M.A., *Ohio State U.*

Aviation

Prof: C. Elaine McCoy (chair), Ph.D., *Ohio U.*

Asst. Prof: Ronald J. Faliszek, B.B.A., *Ohio U.*; B.J. Galloway, M.B.A., *Embry-Riddle Aeronautical U.*

Instr: Steven Archille, B.S., *Ohio U.*; Joseph J. Gascoyne, B.S., *Ohio U.*; Joanne M. Stepic, B.S., *Ohio U.*; Chad Ward, B.S., *Ohio U.*

Biological Sciences

Prof: William Hummon (part-time), Ph.D., *U. of Massachusetts*; Anne Loucks, Ph.D., *U. of California, Santa Barbara*; Ellengene Peterson, Ph.D., *U. of California, Riverside*; Jerome Rovner (part-time), Ph.D., *U. of Maryland*; Michael Rowe, Ph.D., *U. of California, Riverside*; Gerald Svendsen, Ph.D., *U. of Kansas*; John Zook, Ph.D., *Duke U.*

Assoc. Prof: Anthony Brown, Ph.D., *King's College, U. of London*; Mary Chamberlin, Ph.D., *U. of British Columbia*; Robert Colvin, Ph.D., *Rutgers U.*; Ralph DiCaprio, Ph.D., *U. of Alberta*; William Holmes, Ph.D., *U. of California, Los Angeles*; Scott Hooper, Ph.D., *Brandeis U.*; Patricia Humphrey (part-time), Ph.D., *Purdue U.*; Donald Miles, Ph.D., *U. of Pennsylvania*; Scott Moody, Ph.D., *U. of Michigan*; Stephen N. Reilly, Ph.D., *Southern Illinois U.*; Matthew White, Ph.D., *Virginia Tech*.

Asst. Prof: Elizabeth Crockett, Ph.D., *U. of Maine*; Mark F. Dybdahl, Ph.D., *U. of California, Davis*; Donald L. Holzschu, Ph.D., *U. of California, Davis*; Kelly Johnson, Ph.D., *Michigan State U.*; David Kurjiaka, Ph.D., *Pennsylvania State U.*; Molly R. Morris, Ph.D., *Indiana U.*; Willem Roosenburg, Ph.D., *U. of Pennsylvania*.

Instr: Helaine Burstein, Ph.D., *North Carolina State U.*; Robert Carr, Ph.D., *U. of Michigan*; Joan Cunningham, Ph.D., *Ohio U.*; Steven Edinger, M.A., *Northern Michigan U.*; Ronald Heinrich, Ph.D., *Johns Hopkins U.*; Karen A. Mammone, M.S., *Frostburg State U.*; Christopher Schwirian, M.S., *Ohio U.*; M. Suzanne Simonon, B.S., *College of Mount St. Joseph*.

Lect: Laura DiCaprio, Ph.D., *U. of Alberta*; Molly McCarthy, M.S., *Rutgers U.*; Mary Nossek, M.S., *Ohio U.*

Chemistry and Biochemistry

Prof: Kenneth L. Brown (chair), Ph.D., *U. of Pennsylvania*; Howard D. Dewald, Ph.D., *New Mexico State U.*; David Hendricker, Ph.D., *Iowa State U.*; Gary Small, Ph.D., *U. of North Carolina*; Paul Sullivan (emeritus, part-time), Ph.D., *U. of Waterloo*.

Assoc. Prof: Jared Butcher Jr., Ph.D., *U. of Tennessee*; Karen E. Eichstadt, Ph.D., *U. of Kansas*; Peter deB. Harrington, Ph.D., *U. of North Carolina*; Frederick Lemke, Ph.D., *Purdue U.*; Mark C. McMills, Ph.D., *Michigan State U.*; Gary Pfeiffer, Ph.D., *Carnegie Mellon U.*; Hugh H. Richardson, Ph.D., *Oklahoma State U.*; Martin T. Tuck, Ph.D., *U. of Tennessee*; Gene Westenbarger (emeritus, part-time), Ph.D., *U. of California, Berkeley*.

Asst. Prof: Anthony Andrews, Ph.D., *U. of Hull*; Elisar Barbar, Ph.D., *Portland State U.*; Michael Hare, Ph.D., *U. of Minnesota*; Marcia Kieliszewski, Ph.D., *Michigan State U.*; Lauren E. McMills, Ph.D., *Michigan State U.*; Paul Van Patten, Ph.D., *U. of South Carolina*; David Young, Ph.D., *U. of Edinburgh*.

Classics

Charles J. Ping Professor of Humanities: Thomas H. Carpenter, Ph.D., *Oxford U.*

Assoc. Prof: James A. Andrews (chair), Ph.D., *U. of California, Berkeley*; Robert Stephen Hays, Ph.D., *U. of Texas, Austin*; William Owens, Ph.D., *Yale U.*

Asst. Prof: Joel Allen, Ph.D., *Yale U.*; Ruth Palmer, Ph.D., *U. of Cincinnati*.

Communication Systems Management

Prof: Phyllis W. Bernt, Ph.D., *U. of Nebraska*.

Assoc. Prof: Hans Kruse (director), Ph.D., *Vanderbilt U.*

Asst. Prof: Philip Campbell, M.S., *SUNY, Stony Brook*; Anthony G. Mele, B.S., *Ohio U.*; Trevor Roycroft, Ph.D., *U. of California, Davis*.

Comparative Arts

Prof: Jessica Haigney, Ph.D., *Ohio U.*; Norma Humphreys (interim director), Ph.D., *Ohio U.*; Dora J. Wilson, Ph.D., *U. of Southern California*.

Assoc. Prof: Timothy Wutrich, Ph.D., *Tufts U.*

Asst. Prof: Wojtek Chojna, Ph.D., *Temple U.*

Dance

Dist. Prof: Gladys Bailin (emerita, part-time), B.A., *Hunter College*.

Prof: Madeleine Scott (director), M.A., *U. of California, Los Angeles*.

Assoc. Prof: Patricia Brooks (emerita, part-time), B.S., *Wayne State U.*; Michelle Geller, M.F.A., *New York U. School of the Arts*; Andre Gribou, M.M., *Juilliard School of Music*; Marina Valchi, M.F.A., *Ohio U.*; Susan Van Peit, M.A., *Ohio State U.*

Asst. Prof: Travis Gatling, M.F.A., *Ohio State U.*; Lisa F. Moulton, M.F.A., *U. of Utah*.

Lect: Frederick Kraps (part-time).

Economics

Dist. Prof: Lowell Gallaway, Ph.D., *Ohio State U.*; Richard Vedder, Ph.D., *U. of Illinois*.

Prof: Douglas Adie, Ph.D., *U. of Chicago*; Roy Boyd, Ph.D., *Duke U.*; Edwin Charlé (emeritus, part-time), Ph.D., *Indiana U.*; Khosrow Doroodian, Ph.D., *U. of Oregon*; Ismail Ghazalah, Ph.D., *U. of California, Berkeley*; David Klingaman, Ph.D., *U. of Virginia*; Rajindar K. Koshal, Ph.D., *U. of Rochester*.

Assoc. Prof: Tony Caporale, Ph.D., *George Mason U.*; Chulho Jung, Ph.D., *U. of Michigan*; Jan Palmer (chair), Ph.D., *Michigan State U.*; Rosemary Rossiter, Ph.D., *U. of Wisconsin, Milwaukee*; Harold Winter, Ph.D., *U. of Rochester*.

Asst. Prof: Barbara Caporale, Ph.D., *George Mason U.*

Education—Counseling and Higher Education

Prof: Thomas Davis, Ph.D., *Ohio State U.*; Fred Dressel (emeritus, part-time), Ed.D., *Indiana U.*; Luther Haseley (emeritus, part-time), Ed.D., *U. of Toledo*; Richard Hazler, Ph.D., *U. of Idaho*; Richard Miller, Ph.D., *Columbia U.*; Sally Navin (emerita, part-time), Ph.D., *Ohio State U.*; Thomas Sweeney (emeritus, part-time), Ph.D., *Ohio State U.*; Robert Young, Ph.D., *U. of Illinois*.

Assoc. Prof: Patricia Beamish, Ed.D., *West Virginia U.*; Carla Bradley, Ph.D., *Kent State U.*; Glenn Doston, Ph.D., *Northwestern U.*; Gary Moden, Ph.D., *U. of Missouri*.

Asst. Prof: Victoria Guthrie, Ph.D., *Bowling Green State U.*; Tracey Leinbaugh, Ph.D., *U. of Idaho*; Jerry Olsheski, Ph.D., *Ohio State U.*

Education—Educational Studies

Prof: Robert Barcikowski, Ph.D., *SUNY, Buffalo*; James Heap (dean), Ph.D., *U. of British Columbia*; Aimee Howley, Ed.D., *West Virginia U.*; Donald Knox (emeritus, part-time), Ed.D., *Case Western Reserve U.*; Sandy Turner, Ph.D., *U. of South Florida*; George Wood, Ph.D., *U. of Illinois*.

Assoc. Prof: W. Stephen Howard, Ph.D., *Michigan State U.*; George Johanson, Ed.D., *U. of Massachusetts*; John McCutcheon, Ed.D., *Indiana U.*

Asst. Prof: Teresa Franklin, Ph.D., *Ohio U.*; Catherine Glascock, Ph.D., *Louisiana State U.*; Suzy Green, Ph.D., *Ohio U.*; Chandra Hawley Orrill, Ph.D., *Indiana U.*; Jaylyne Hutchinson, Ph.D., *U. of Washington*; William Larson (part-time), Ph.D., *Bowling Green State U.*; Najee Muhammad, Ph.D., *U. of Cincinnati*; Tracey Reed, Ph.D., *U. of Virginia*; Charles Taylor (part-time), Ph.D., *Bowling Green State U.*

Instr: Michael Beutner, M.A., *Ohio U.*

Education—Teacher Education

Prof: Larry Jageman, Ed.D., *U. of Northern Colorado*; Ralph Martin, Ph.D., *U. of Toledo*; Joan McMath, Ph.D., *U. of Akron*; Ragy Mitos, Ph.D., *Ohio State U.*; Stephen Safran, Ph.D., *U. of Virginia*; James Schultz (Morton Prof.), Ph.D., *Ohio State U.*; Charles Smith Jr., Ed.D., *Wayne State U.*; James Thompson (emeritus, part-time), Ph.D., *Ohio State U.*

Assoc. Prof: Bonnie Beach, Ph.D., *Ohio U.*; Arthur Clubok (emeritus, part-time), Ph.D., *U. of Michigan*; Dorothy Leal, Ph.D., *U. of Kentucky*; Sondra Rebottini, Ed.D., *West Virginia U.*; Barbara Reeves, Ed.D., *U. of Kentucky*; Marta Roth, Ed.D., *West Virginia U.*; Joan Safran, Ph.D.,

U. of Virginia; William Smith, Ed.D., *Indiana U.*; Scott Sparks, Ph.D., *U. of Florida*; James Yanok, Ph.D., *Kent State U.*

Asst. Prof: Heidi Andrade, Ed.D., *Harvard U.*; Dianne Gut, Ph.D., *U. of North Carolina, Chapel Hill*; Rosalie Romano, Ph.D., *U. of Washington*.

Instr: Ruth Ann Murphy, M.A., *Ohio U.*; William Twarogowski (part-time), M.Ed., *Xavier U.*

Education—Professional Laboratory Experiences

Instr: Rena Allen, M.A., *Marshall U.*; Bonnie Bailey, M.Ed., *Indiana U. of Pennsylvania*; Diane Burkhart, M.Ed., *Kent State U.*; Connie Scott, M.Ed., *Ohio U.*; Karl Weimer, Ed.D., *Case Western Reserve U.*

Engineering, Chemical

Prof: Nicholas Dinos (emeritus, part-time), Ph.D., *Lehigh U.*; W. Paul Jepson (Russ Prof.), Ph.D., *Heriot-Watt U., Scotland*; Michael Prudich (chair), Ph.D., *West Virginia U.*

Assoc. Prof: Wen-Jia Russell Chen, Ph.D., *Syracuse U.*; Tingyue Gu, Ph.D., *Purdue U.*; Daniel Gulino, Ph.D., *U. of Illinois*; Darin Ridgway, Ph.D., *Florida State U.*; Kendree Sampson, Ph.D., *Purdue U.*

Asst. Prof: Madan Gopal, Ph.D., *Ohio U.*; Valerie Young, Ph.D., *Virginia Polytechnic Institute and State U.*

Engineering, Civil

Prof: Tiao Chang, Ph.D., *Purdue U.*; Glenn Hazen, Ph.D., *Pennsylvania State U.*; Gayle Mitchell (Russ Prof. and chair), Ph.D., *Mississippi State U.*; Shad Sargand (Russ Prof.), Ph.D., *Virginia Polytechnic Institute and State U.*; W. Kent Wray (dean), Ph.D., *Texas A & M U.*

Assoc. Prof: Lloyd A. Herman, Ph.D., *Vanderbilt U.*; Eric P. Steinberg, Ph.D., *Michigan Tech. U.*

Asst. Prof: Kenneth B. Edwards, Ph.D., *Iowa State U.*; Sang-Soo Kim, Ph.D., *Iowa State U.*; Teruhisa Masada, Ph.D., *Ohio U.*; Ben J. Stuart, Ph.D., *Rutgers U.*

Engineering, Electrical and Computer Science

Stocker Visiting Prof: Charles Alexander, Ph.D., *Ohio U.*

Prof: Hollis Chen (part-time), Ph.D., *Syracuse U.*; Joseph Essman (emeritus, part-time), Ph.D., *Purdue U.*; Herman Hill, Ph.D., *West Virginia U.*; R. Dennis Irwin (chair), Ph.D., *Mississippi State U.*; Robert Judd (Cooper Industries Prof.), Ph.D., *Oakland U.*; Henryk Lozykowski, Ph.D., *N. Copernicus U.*; Brian Manhire, Ph.D., *Ohio State U.*; Jerrel Mitchell (Russ Prof.), Ph.D., *Mississippi State U.*; M.E. Mokari, Ph.D., *U. of Illinois*; Roger Radcliff, Ph.D., *West Virginia U.*; Janusz Starzyk, Ph.D., *Technical U., Warsaw*; Frank van Graas, Ph.D., *Ohio U.*; Lonnie Welch, Ph.D., *Ohio State U.*

Assoc. Prof: Michael S. Braasch, Ph.D., *Ohio U.*; Mehmet Celenk, Ph.D., *Stevens Institute of Technology*; David Chelberg, Ph.D., *Stanford U.*; Robert Curtis, Ph.D., *New York U.*; Jeffrey Dill, Ph.D., *U. of Southern California*; Jeffrey Giesey, Ph.D., *U. of Michigan*; John Gillam (part-time), Ph.D., *Michigan State U.*; Douglas Lawrence, Ph.D., *Johns Hopkins U.*; Joseph H. Nurre, Ph.D.,

U. of Cincinnati; Shawn Ostermann, Ph.D., *Purdue U.*; Constantinos Vassiliadis, Ph.D., *Mississippi State U.*

Asst. Prof: Chris Bartone, Ph.D., *Ohio U.*; Liming Cai, Ph.D., *Texas A & M U.*; Voula Georgopoulos, Ph.D., *Tufts U.*; Larry Irwin (part-time), M.S., *Ohio U.*; David Juedes, Ph.D., *Iowa State U.*; Cynthia Marling, Ph.D., *Case Western Reserve U.*; Brett Tjaden, Ph.D., *U. of Virginia.*

Lect: Margaret Thomas (part-time), M.A., *Ohio U.*

Instr: William Austad (part-time), M.S., *Ohio U.*; John Dolan (part-time), M.S., *Ohio U.*; Victor Hanna (part-time), M.S., *Youngstown State U.*; Vasant Shastri (part-time), Ph.D., *Ohio U.*

Asst. Instr: B. Deahl, B.F.A., *U. of Iowa*; David Sharpe, M.A., *Brown U.*

Engineering, Industrial and Manufacturing Systems

Prof: Charles M. Parks (chair), Ph.D., *Oklahoma State U.*; E. Ralph Sims (emeritus, part-time), M.B.A., *Ohio U.*; Robert Williams (emeritus, part-time), Ph.D., *Ohio State U.*; Helmut Zwahlen (emeritus, part-time, Russ Prof.), Ph.D., *Ohio State U.*

Assoc. Prof: Richard J. Gerth, Ph.D., *U. of Michigan*; David A. Koonce, Ph.D., *Louisiana State U.*

Asst. Prof: Trevor S. Hale, Ph.D., *Texas A&M U.*; Thomas K. Keyser, Ph.D., *Clemson U.*; Robert Lipset, Ph.D., *Oakland U.*; Dale T. Masel, Ph.D., *Pennsylvania State U.*; Dusan Sormaz, Ph.D., *U. of Southern California.*

Engineering, Mechanical

Prof: Khairul Alam (Moss Prof.), Ph.D., *California Institute of Technology*; Gary Graham, Ph.D., *Texas Technical U.*; Jay Gunasekera (Moss Prof. and chair), Ph.D., *U. of London*; Hajrudin Pasic, Ph.D., *Stanford U.*; T. Richard Robe (dean emeritus), Ph.D., *Stanford U.*

Assoc. Prof: Kenneth Halliday, Ph.D., *U. of Massachusetts*; Bhavin Mehta (part-time), Ph.D., *Ohio U.*; Israel Urieli, Ph.D., *U. of Witwatersrand.*

Asst. Prof: David Bayless, Ph.D., *U. of Illinois*; James M. Fragomeni, Ph.D., *Purdue U.*; Gregory G. Kremer, Ph.D., *U. of Cincinnati*; Jae Y. Lew, Ph.D., *Georgia Institute of Technology*; Robert L. Williams II, Ph.D., *Virginia Polytechnic Institute and State U.*

English

Dist. Prof: Robert DeMott, Ph.D., *Kent State U.*; Wayne Dodd (emeritus, part-time), Ph.D., *U. of Oklahoma*; John Matthews, M.A., *Ohio State U.*

Trustee Prof: Samuel Crowl, Ph.D., *Indiana U.*

Prof: Laurence Bartlett (emeritus, part-time), Ph.D., *Michigan State U.*; Frank Cronin (emeritus, part-time), Ph.D., *U. of Pittsburgh*; Susan Crowl, Ph.D., *Indiana U.*; James Davis (emeritus, part-time), Ph.D., *Florida State U.*; Raymond Fitch (emeritus, part-time), Ph.D., *U. of Pennsylvania*; Roy Flannagan, Ph.D., *U. of Virginia*; Earl Knies (emeritus, part-time), Ph.D., *U. of Illinois*; Dean McWilliams, Ph.D., *U. of Oregon*; Vance Ramsey (emeritus, part-time), Ph.D., *U. of Oklahoma*; Barry Roth, Ph.D., *Stanford U.*; Duane Schneider (emeritus, part-time), Ph.D., *U. of Colorado*; James Thompson (emeritus, part-time), Ph.D., *U. of Cincinnati.*

Assoc. Prof: Marilyn Atlas, Ph.D., *Michigan*

State U.; Linda Hunt Beckman, Ph.D., *U. of California, Berkeley*; David Bergdahl, Ph.D., *Syracuse U.*; Josephine Bloomfield, Ph.D., *U. of California, Davis*; Marsha Dutton, Ph.D., *U. of Michigan*; Loreen Giese, Ph.D., *Emory U.*; Mark Halliday, Ph.D., *Brandeis U.*; David Heaton (emeritus, part-time), Ph.D., *U. of Michigan*; Janis Holm, Ph.D., *U. of Michigan*; Mara Holt, Ph.D., *U. of Texas*; Reid Huntley (emeritus, part-time), Ph.D., *U. of North Carolina*; Ernest Johansson (emeritus, part-time), Ph.D., *U. of North Carolina*; William Kuhre (emeritus, part-time), Ph.D., *Pennsylvania State U.*; David Lazar, Ph.D., *U. of Houston*; Robert Miklitsch, Ph.D., *SUNY, Buffalo*; Betty Pytlík, Ph.D., *U. of Southern California*; Mark Rollins, Ph.D., *U. of Massachusetts*; Darrell Spencer, Ph.D., *U. of Utah*; Arthur Woolley (interim chair), Ph.D., *U. of Wisconsin*; Linda Zionkowski, Ph.D., *Northwestern U.*

Asst. Prof: Deborah Brown, Ph.D., *U. of Oklahoma*; Michael Brown (part-time), Ph.D., *Ohio U.*; Joan Connor, M.F.A., *Vermont College*; Kenneth Daley, Ph.D., *New York U.*; Andrew Escobedo, Ph.D., *U. of California, Berkeley*; Christine Freeman (part-time), Ph.D., *Kent State U.*; George Hartley, Ph.D., *U. of New Mexico*; Joseph McLaughlin, Ph.D., *Duke U.*; Katarzyna Marciniak, Ph.D., *U. of Oregon*; Charles Naccarato (part-time), Ph.D., *Ohio U.*; Jill Allyn Rosser (part-time), Ph.D., *U. of Pennsylvania*; Albert Rouzie, Ph.D., *U. of Texas*; Thomas Scanlan, Ph.D., *Duke U.*; Barry L. Thatcher, Ph.D., *Purdue U.*; Lowell Ver Heul (part-time), Ph.D., *Ohio U.*; Jeremy Webster, Ph.D., *U. of Tennessee*; Valorie Worthy (part-time), Ph.D., *Ohio U.*

Instr: David Bruce (part-time), M.A., *Ohio U.*; Jane Denbow (part-time), M.A., *Marshall U.*; Miriam Hart (part-time), M.A., *Ohio U.*; Robert Kinsley (part-time), M.A., *Ohio U.*; Thomas Mantey (part-time), M.A., *Ohio U.*; David Sharpe (part-time), M.A., *Brown U.*; Joan Zook (part-time), M.A., *U. of Michigan.*

Environmental and Plant Biology

Prof: James Braselton (chair), Ph.D., *Iowa State U.*; Philip Cantino, Ph.D., *Harvard U.*; James Cavender, Ph.D., *U. of Wisconsin*; John Mitchell, Ph.D., *Edinburgh U.*; Gar Rothwell, Ph.D., *U. of Alberta*; Allan M. Showalter, Ph.D., *Rutgers U.*; Ivan Smith, Ph.D., *U. of London*; Irwin Ungar, Ph.D., *U. of Kansas.*

Assoc. Prof: Gene Mapes (part-time), Ph.D., *U. of Iowa*; Brian McCarthy, Ph.D., *Rutgers U.*; Jan Salick, Ph.D., *Cornell U.*; Arthur T. Trese, Ph.D., *U. of Missouri.*

Asst. Prof: Harvey Ballard, Jr., Ph.D., *U. of Wisconsin*; Morgan Vis-Chiasson, Ph.D., *Memorial U. of Newfoundland.*

Film

Eminent Scholar in Film: Rajko Grlic, M.F.A., *Famu Prague.*

Prof: George Semsel, Ph.D., *Ohio State U.*; David O. Thomas, Ph.D., *Southern Illinois U.*

Assoc. Prof: Jenny Kwok Wah Lau, Ph.D., *Northwestern U.*; R. William Rowley (director), M.F.A., *U. of Iowa.*

Finance

Bank One Prof: Nanda Rangan, Ph.D., *Texas A & M U.*

Charles G. O'Brien Prof. of Finance and Banking: Ganas K. Rakes (chair), D.B.A., *Washington U.*

Prof: Azmi D. Mikhail (emeritus, part-time),

Ph.D., *Ohio State U.*

Assoc. Prof: Jeffrey Allen Manzi, Ph.D., *Kent State U.*; Dwight A. Pugh (part-time), Ph.D., *Ohio U.*

Asst. Prof: Natalie M. Chieffe, D.B.A., *Mississippi State U.*; Rajesh P. Narayanan, Ph.D., *Florida State U.*; Padamja Singal, M.B.A., *U. of Delhi.*

Instr: John E. Reynolds III, Executive in Residence, M.B.A., *Wharton School, U. of Pennsylvania*; Scott B. Wright, M.B.A., *Ohio U.*

Geography

Prof: Nancy R. Bain (chair), Ph.D., *U. of Minnesota*; Frank E. Bernard, Ph.D., *U. of Wisconsin*; Bob J. Walter (emeritus, part-time), Ph.D., *U. of Wisconsin*; Lynden S. Williams (emeritus, part-time), Ph.D., *U. of Kansas.*

Assoc. Prof: Hubertus H. L. Bloemer, Ph.D., *The Union Institute*; James M. Dyer, Ph.D., *U. of Georgia*; James K. Lein, Ph.D., *Kent State U.*; Dorothy Sack, Ph.D., *U. of Utah.*

Asst. Prof: Tim Anderson, Ph.D., *Texas A & M U.*; Christopher G. Boone, Ph.D., *U. of Toronto*; Geoffrey L. Buckley, Ph.D., *U. of Maryland*; Ronald H. Isaac, Ph.D., *Southern Illinois U.*; Yeong-Hyun Kim, Ph.D., *Syracuse U.*

Geological Sciences

Prof: Royal Mapes, Ph.D., *U. of Iowa*; Damian Nance (chair), Ph.D., *U. of Cambridge, England*; Geoffrey Smith, Ph.D., *Ohio State U.*; Thomas Worsley, Ph.D., *U. of Illinois.*

Assoc. Prof: Douglas Green, Ph.D., *U. of Wisconsin*; Gene Heien, M.A., *Indiana U.*; David Kidder, Ph.D., *U. of California, Santa Barbara*; Elizabeth Gierlowski-Kordesch, Ph.D., *Case Western Reserve U.*

Asst. Prof: Patricia Heiser, Ph.D., *U. of Alaska, Fairbanks*; Dina Lopez, Ph.D., *Louisiana State U.*; Greg Nadon, Ph.D., *U. of Toronto*; Mary Stoertz, Ph.D., *U. of Wisconsin.*

Health Sciences

Prof: Clifford Houk (emeritus, part-time), Ph.D., *Montana State U.*; Gari Lesnoff-Caravaglia, Ph.D., *U. of California, Los Angeles.*

Assoc. Prof: Douglas Bolon, Ph.D., *Virginia Polytechnic Institute and State U.*; Paul E. Fitzgerald (director), Ph.D., *U. of Alabama, Birmingham*; Richard Hedges, Ph.D., *U. of Kentucky.*

Asst. Prof: Patricia Baasel, Ph.D., *Ohio U.*; Kevin Crist, Ph.D., *U. of Iowa*; Stephen Hohman, Ph.D., *Pennsylvania State U.*; Michele Morrone, Ph.D., *Ohio State U.*; Timothy Ryan, M.S., Ph.D., *U. of Texas*; Ruth A. Waibel, M.A., *U. of Phoenix*; Katherine E. Will, Ph.D., *Ohio U.*

Instr: Juli Miller (part-time), M.H.S.A., *Ohio U.*

Hearing and Speech Sciences

Prof: Donald Fucci, Ph.D., *Purdue U.*; Norman Garber (director), Ph.D., *U. of Missouri*; Edwin Leach (part-time), Ph.D., *U. of Kansas*; Gary Neiman (dean), Ph.D., *U. of Illinois.*

Assoc. Prof: Dean Christopher, Ph.D., *Ohio State U.*; Helen Ezell, Ph.D., *U. of Pittsburgh*; Brooke Hallowell, Ph.D., *U. of Iowa*; Ronald Isele (emeritus, part-time), M.A., *Kent State U.*

Asst. Prof: Emily Buckberry (emerita, part-time), M.A., *Ohio U.*; C. Richard Dean, Ph.D., *Stanford U.*; M. Patrick Feeney, Ph.D., *U. of Washington*; Steve An Xue, Ph.D., *Kent State U.*; Erika Zettner, Ph.D., *U. of Washington*.

Instr: Joan Fucci, M.S., *U. of Pittsburgh*; Meryl Ginsburg, M.S., *West Virginia U.*; F. Travis Milliken, M.S., *Brigham Young U.*; Davida Parsons, M.A., *Ohio U.*; Janis M. Wright, M.A., *Cleveland State U.*

History

Ohio Eminent Research Scholar: Alfred Eckes, Ph.D., *U. of Texas*.

Dist. Prof: Charles Alexander, Ph.D., *U. of Texas*; Alonzo Hamby, Ph.D., *U. of Missouri*.

J. Richard Hamilton/Baker and Hostetler Prof: Alan R. Booth (emeritus, part-time), Ph.D., *Boston U.*

Prof: Marvin Fletcher, Ph.D., *U. of Wisconsin*; Jeffrey Herf, Ph.D., *Brandeis U.*; Joan Hoff, Ph.D., *U. of California, Berkeley*; Donald Jordan, Ph.D., *U. of Wisconsin*; William Kaldis, Ph.D., *U. of Wisconsin*; Compton Reeves (emeritus, part-time), Ph.D., *Emory U.*; Donald Richter (emeritus, part-time), Ph.D., *U. of Maryland*; Bruce Steiner (chair), Ph.D., *U. of Virginia*.

Assoc. Prof: Douglas Baxter, Ph.D., *U. of Minnesota*; Phillip Bebb, Ph.D., *Ohio State U.*; Phyllis Field, Ph.D., *Cornell U.*; William Frederick, Ph.D., *U. of Hawaii*; Norman J.W. Goda, Ph.D., *U. of North Carolina*; Michael Grov, Ph.D., *George Washington U.*; Richard Harvey, Ph.D., *U. of Missouri*; Katherine Jellison, Ph.D., *U. of Iowa*; Lyle McGeoch (emeritus, part-time), Ph.D., *U. of Pennsylvania*; Steven Miner, Ph.D., *Indiana U.*; Chester Pach, Ph.D., *Northwestern U.*; Roy Rauschenberg (emeritus, part-time), Ph.D., *U. of Illinois*; Robert Whealey, Ph.D., *U. of Michigan*.

Asst. Prof: Joel Allen, Ph.D., *Yale U.*; Walter Hawthorne, Ph.D., *Stanford U.*; Sholeh A. Quinn, Ph.D., *U. of Chicago*; Mary Frances Smith, Ph.D., *Boston College*.

Human and Consumer Sciences

Prof: Margaret King, Ed.D., *U. of Massachusetts*; Catherine McQuaid-Steiner (emerita), Ph.D., *Ohio U.*

Assoc. Prof: Judy Matthews (emerita, part-time), Ph.D., *Ohio State U.*; Sharran Parkinson, Ph.D., *Ohio U.*; V. Ann Paulins (director), Ph.D., *Ohio State U.*

Asst. Prof: Jennifer Chabot, Ph.D., *Michigan State U.*; Lee Cibrowski, Ph.D., *Ohio State U.*; Schuyler Cone, Ph.D., *Ohio State U.*; Eugene Geist, Ph.D., *U. of Alabama, Birmingham*; Annette S. Graham, Ph.D., *Pennsylvania State U.*; Marjorie Hagerman, M.S., *Ohio U.*; David Holben, Ph.D., *Ohio State U.*; J. David Matthews, M.A., *Miami U.*; Richard Neumann, M.S., *U. of Wisconsin*; June Varner (emerita, part-time), Ed.D., *West Virginia U.*; Karen Wilcox, Ph.D., *Virginia Polytechnic Institute and State U.*; Letty Workman, M.B.A., *Southern Illinois U.*; Matthew Ziff, M. Arch., *Virginia Polytechnic Institute and State U.*

Instr: Francie Astrom, M.S., *Northern Illinois U.*

Industrial Technology

Prof: James Fales (Loehr Prof. and chair), Ed.D., *Texas A & M U.*; William Reeves, Ed.D., *U. of Kentucky*.

Assoc. Prof: John Deno, Ph.D., *Ohio State U.*; Peter W. Klein, Ph.D., *Ohio U.*; Patrick J.

McCustion, Ph.D., *Texas A & M U.*; Thomas E. Scott, Ph.D., *Ohio U.*; Timothy Sexton, Ph.D., *Ohio U.*

Asst. Prof: Dinesh Dhamija, M.S., *Ohio U.*

Interpersonal Communication

Prof: Tom Daniels, Ph.D., *Ohio U.*; David Descutner (director), Ph.D., *U. of Illinois*; Sue DeWine (part-time), Ph.D., *Indiana U.*; Elizabeth Graham, Ph.D., *Kent State U.*; Claudia Hale, Ph.D., *U. of Illinois*; Raymie E. McKerrow, Ph.D., *U. of Iowa, Iowa City*; Paul E. Nelson, Ph.D., *U. of Minnesota*.

Assoc. Prof: Roger Aden, Ph.D., *U. of Nebraska*; Christina Beck, Ph.D., *U. of Oklahoma*; Charles Carlson (emeritus, part-time), M.Ed., *Kent State U.*; Ted Foster (emeritus, part-time), Ph.D., *Ohio U.*; Anita James, Ph.D., *U. of Southern California*; Judith Yaross Lee, Ph.D., *U. of Chicago*; Michael Papa, Ph.D., *Temple U.*; Arvind Singhal, Ph.D., *U. of Southern California*; Arvind Singhal, Ph.D., *U. of Southern California*; John Smith, Ph.D., *Wayne State U.*; Ray Wagner (emeritus, part-time), Ph.D., *Ohio U.*

Asst. Prof: Cedric Dawkins, Ph.D., *Ohio State U.*; Jerry L. Miller, Ph.D., *U. of Oklahoma*; Daniel P. Modaff, Ph.D., *U. of Texas*; Wendy Papa, Ph.D., *Ohio U.*; Nagesh Rao, Ph.D., *U. of Michigan*; Timothy Simpson, Ph.D., *U. of South Florida*; Candice Thomas-Maddox, Ed.D., *West Virginia U.*

Lect: Margaret Killough (part-time), J.D., *U. of Detroit*.

Journalism

Knight Visiting Prof: Frank Fee, M.A., *SUNY, Brockport*.

Scripps Howard Visiting Professional: Terry Anderson, B.A., *Iowa State U.*

Prof: Michael Bugeja, Ph.D., *Oklahoma State U.*; Anne M. Cooper, Ph.D., *U. of North Carolina*; Hugh Culbertson (emeritus, part-time), Ph.D., *Michigan State U.*; Dru Riley Everts, Ph.D., *Ohio U.*; Marilyn Greenwald, Ph.D., *Ohio State U.*; Melvin Helitzer, B.A., *Syracuse U.*; Ralph Izard (emeritus, part-time), Ph.D., *U. of Illinois*; Ralph Kliesch (emeritus, part-time), Ph.D., *U. of Minnesota*; Donald Lambert, M.A., *Pennsylvania State U.*; Daniel Riffe (director), Ph.D., *U. of Tennessee*; Jerry Sloan (emeritus, part-time), B.S., *Ohio U.*; Robert Stewart, Ph.D., *U. of Washington*; Patrick Washburn, Ph.D., *Indiana U.*; Patricia Westfall, M.S., *Columbia U.*

Assoc. Prof: Joe Bernt, Ph.D., *U. of Nebraska*; Eddith Dashiell, Ph.D., *Indiana U.*; Sandra Haggerty, B.S., *Utah State U.*; Thomas Hodges, M.S., *South Dakota State U.*; Thomas Peters, M.B.A., *Ohio U.*; Ron Pittman, M.S., *Marshall U.*; Cassandra Reese, Ph.D., *Ohio U.*

Asst. Prof: Bill Beuttler, M.S., *Columbia U.*; Bojinka Bishop, M.S., *U. of Michigan*; Ovril Patricia Cambridge, Ph.D., *Ohio U.*; Jan Slater, Ph.D., *Syracuse U.*; Jeanne R. Steele, Ph.D., *U. of North Carolina*.

Instr: Kenneth Fischer (part-time), M.A., *Brigham Young U.*; Thomas Hodson (part-time), J. D., *Ohio State U.*; Kathy Pittman (part-time), M.Ed., *Ohio U.*

Asst. Instr: Douglas E. Nohl (part-time), B.S.C., *Ohio U.*

Linguistics

Prof: Zinny Bond, Ph.D., *Ohio State U.*; David Bell (visiting), *Boston U.*; Leslie Flemming (dean), Ph.D., *U. of Wisconsin*.

Assoc. Prof: James Coady, Ph.D., *Indiana U.*; Beverly Flanigan, Ph.D., *Indiana U.*; Richard McGinn (chair), Ph.D., *U. of Hawaii*; Marmo Soemarmo, Ph.D., *U. of California, Los Angeles*.

Asst. Prof: Scott Jarvis, Ph.D., *Indiana U.*; John Mugone, Ph.D., *U. of Arizona*; Hiroyuki Oshita, Ph.D., *U. of Southern California*; Liang Tao, Ph.D., *U. of Colorado*; Christopher Thompson, Ph.D., *U. of Illinois*.

Instr: Fumika Chosokabe, M.A., *Ohio U.*; Joung Hee Krzic (visiting), M.A., *Ohio U.*; Suharni Soemarmo, M.A., *U. of California, Los Angeles*.

Management Information Systems

Prof: Ted R. Compton, Ph.D., *U. of Cincinnati*; John Day (chair), Ph.D., *Ohio U.*; Raymond Frost, Ph.D., *U. of Miami, Florida*; Thomas G. Luce, Ph.D., *Purdue U.*; James Perotti, Ph.D., *Duquesne U.*

Assoc. Prof: Hao Lou, Ph.D., *U. of Houston*; David Sutherland, Ph.D., *U. of Kansas*.

Asst. Prof: Kevin Elder, Ph.D., *U. of Arizona*; Ellsworth Holden (emeritus, part-time), M.A., *Harvard U.*; Craig Van Slyke, Ph.D.; *U. of South Florida*.

Lect: Corrine Brown (part-time), Ph.D., *Ohio U.*

Management Systems

O'Brieness Prof: John R. Schermerhorn Jr., Ph.D., *Northwestern U.*

Lecturer and Executive-in-Residence: Richard C. Scamehorn, M.B.A., *Indiana U.*

Prof: Thomas Bolland (emeritus, part-time), Ph.D., *U. of Chicago*; C. Aaron Kelley, Ph.D., *U. of North Texas*; Manjulika Koshal, Ph.D., *Patna U.*; Arthur Marinelli, J.D., *Ohio State U.*; Valerie S. Perotti, Ph.D., *Ohio U.*; Lucian Spataro (emeritus, part-time), Ph.D., *U. of Illinois*; John Stinson (emeritus, part-time), Ph.D., *Ohio State U.*; Lane Tracy (emeritus, part-time), Ph.D., *U. of Washington*.

Assoc. Prof: Frank Barone, Ph.D., *Ohio State U.*; Gerald F. Carvalho (emeritus, part-time), Ph.D., *U. of Michigan*; Garth Coombs, Ph.D., *U. of Colorado*; Kenneth Cutright, Ph.D., *West Virginia U.*; William Day (emeritus, part-time), D.B.A., *Harvard U.*; Patricia Gunn, J.D., *Boston College*; Mary Keifer (chair), J.D., *U. of Virginia*; Clarence Martin, Ph.D., *Carnegie Mellon U.*; Richard Milter, Ph.D., *SUNY, Albany*; Bonnie Roach, Ph.D., *Ohio State U.*; Jessie Roberson, J.D., *U. of Michigan*; Hugh Sherman, Ph.D., *Temple U.*; Rebecca A. Thacker, Ph.D., *Texas A & M U.*; Edward B. Yost, Ph.D., *Ohio State U.*

Asst. Prof: David Chappell, Ph.D., *U. of Colorado*; Mary Tucker, Ph.D., *U. of New Orleans*.

Instr: Virginia Woolley (part-time), M.A., *U. of Wisconsin*.

Lect: Pamela A. Boger (part-time), Ph.D., *Ohio U.*; C. Michael Gray (part-time), J.D., *U. of Wisconsin*; John Keifer, J.D., *U. of Virginia*; Peggy Miller (part-time), Ph.D., *Ohio U.*; Christine A. Yost (part-time), Ph.D., *Ohio U.*

Marketing

O'Brien Chair of Marketing: Ashok Gupta, Ph.D., *Syracuse U.*

Prof: Kahandas Nandola, Ph.D., *U. of Pennsylvania.*

Assoc. Prof: Catherine N. Axinn, Ph.D., *Michigan State U.*; Mary Elizabeth Blair, Ph.D., *U. of South Carolina*; Timothy P. Hartman, Ph.D., *Ohio U.*; Daniel E. Innis, Ph.D., *Ohio State U.*

Asst. Prof: Dawn Deeter, Ph.D., *U. of S. Florida*; Barbara J. Dyer, Ph.D., *U. of Tennessee*; Christopher Moberg, M.B.A., *Miami University*; Jane Z. Sojka, Ph.D., *U. of Washington.*

Instr: Larry S. Rogers, M.B.A., *Ohio U.*

Mathematics

Prof: Abdol-Reza Aftabzadeh, Ph.D., *U. of Texas, Arlington*; Sergiu Aizicovici, Ph.D., *U. of Iasi*; Alexander V. Arhangelskii, Dr. Sc., *VAC, USSR*; Ralph deLaubenfels, Ph.D., *U. of California, Berkeley*; Surender Jain, Ph.D., *U. of Delhi*; Winifred Just, Ph.D., *U. of Warsaw*; Sergio Lopez-Permouth (chair), Ph.D. *North Carolina State U.*; Nicolae Pavel, Ph.D., *U. of Iasi*; Hari Shankar (emeritus, part-time), M.A., *U. of Cincinnati*; Larry Snyder (emeritus, part-time), Ph.D., *Purdue U.*; Shih-Liang Wen (emeritus, part-time), Ph.D., *Purdue U.*; Thomas Wolf, Ph.D., *U. of Wisconsin*; Quoc Phong Vu, Dr. Sc., *VAC, USSR.*

Assoc. Prof: Jeffery Connor, Ph.D., *Kent State U.*; Klaus Eldridge, Ph.D., *U. of Colorado*; Barbara Grover, Ph.D., *U. of Pittsburgh*; Archil Gulisashvili, Dr. Sc., *VAC, USSR*; David Keck, Ph.D., *Ohio State U.*; Paul S. Malcom (emeritus, part-time), Ph.D., *Ohio State U.*; M.S.K. Sastry, Ph.D., *U. of Rochester*; James Shirey, Ph.D., *Purdue U.*; Paul J. Szeptycki, Ph.D., *U. of Toronto*; Vladimir Uspenskiy, Ph.D. *Lomsnosov Moscow U.*; Robert Vancko (emeritus, part-time), Ph.D., *Pennsylvania State U.*; Vladimir Vinogradov, Ph.D., *Moscow State U.*

Asst. Prof: Eyal Arian, Ph.D., *The Weizmann Institute of Science*; Steven A. Chapin, Ph.D., *Rutgers U.*; Thomas Hogan, Ph.D., *U. of Wisconsin, Madison*; William E. Kaufman, Ph.D., *U. of Houston*; Todd Young, Ph.D., *Georgia Institute of Technology.*

Military Science

Prof: Paul L. Schwanenberg, M.A., *Webster U.*

Asst. Prof: Stephen Knotts, B.A., *Xavier U.*

Modern Languages

James S. Reed Standard Products Co. Prof: Lois Vines, Ph.D., *Georgetown U.*

Prof: Richard Danner (emeritus, part-time), Ph.D., *Indiana U.*; Thomas Franz, Ph.D., *U. of Kansas*; Barry Thomas, Ph.D., *U. of California, Berkeley*; Maureen Weissenrieder, Ph.D., *Pennsylvania State U.*; William Wrage (emeritus, part-time), Ph.D., *U. of Wisconsin.*

Assoc. Prof: Noel Barstad (emeritus, part-time), Ph.D., *U. of Minnesota*; David Burton, Ph.D., *U. of Kentucky*; Mary Jane Kelley (chair), Ph.D., *U. of Wisconsin*; Abelardo Moncayo-Andrade, Ph.D., *U. of Maryland*; Ruth Nybakken, Ph.D., *Columbia U.*; Betsy Partyka, Ph.D., *Oxford U.*; Herta Rodina, Ph.D., *Harvard U.*; Fred Toner, Ph.D., *U. of Kansas*; Daniel Torres, Ph.D., *U. of Cincinnati*; Marie-Claire Wrage, Ph.D., *U. of Wisconsin.*

Asst. Prof: José Delgado, Ph.D., *Indiana U.*; Grafton Conliffe (emeritus, part-time), Ph.D., *Northwestern U.*; Dominique Duvert, Ph.D., *U. of North Carolina*; Elise Signe Denbow, Ph.D., *U. of Michigan*; Karen Evans-Romaine, Ph.D., *U. of Michigan*; Yolande Helm, Ph.D., *Pennsylvania State U.*; Susanne Hill, Ph.D., *U. of Florida*; Nelson Hippolyte, Ph.D., *U. of Pittsburgh*; Emilia Marks, Ph.D., *U. of Sevilla*; Matthew Raden, Ph.D., *U. of Pennsylvania*; Kristina von Held, Ph.D., *U. of Massachusetts, Amherst*; Robin Wright, M.A., *Ohio State U.*

Instr: Dominique Bardet, M.A., *Appalachian State U.*; Kathleen Brown, B.A., *U. of Chicago*; Jeffrey Marks, M.A., *U. of Oregon*; Jorge Alberto Perez, Ph.D., *Syracuse U.*; Anne Porter, M.A., *Middlebury College*; Barbara Reichenbach, M.A., *Kent State U.*; Vanisa Sellers, M.A., *Pennsylvania State U.*; Maria Spitz, M.A., *Washington U.*; Josefina Williams, M.A., *Ohio U.*; Karin Wright, M.A., *Ohio U.*

Lect: Bartolomeo Martello, M.A., *Michigan State U.*

Music

Prof: Ernest Bastin, M.M., *U. of Illinois*; Howard Beebe (part-time), M.S., *Juilliard School of Music*; Gail Berenson, M.M., *Northwestern U.*; Mark Phillips, D.M., *Indiana U.*; Allyn Reilly, Ph.D., *Northwestern U.*; Guy Remonko, M.M., *West Virginia U.*; Harold Robison, D.M.A., *U. of Michigan*; James Scholten, Ed.D., *U. of Michigan*; Ronald Socciarelli (emeritus, part-time), M.M., *U. of Michigan*; Roger Stephens (director), M.M., *East Carolina U.*; Richard Syracuse, M.S., *Juilliard School of Music*; Richard Wetzel, Ph.D., *U. of Pittsburgh.*

Assoc. Prof: Marjorie Bennett Stephens, M.M., *Ohio State U.*; Milton Butler, Ph.D., *U. of Arizona*; John Climer, D.M.A., *U. of Missouri, Kansas City*; Peggy A. Coddling, Ph.D., *Florida State U.*; Donna Conaty, M.M., *Yale School of Music*; Kimo Furumoto, M.M., *Cincinnati Conservatory of Music*; Sylvia Reynolds Henry, Ph.D., *U. of Kansas*; Peter Jarjisan, D.M.A., *U. of Wisconsin*; Michael Kellogg, M.M., *Loyola U.*; James Stewart (part-time), Ph.D., *Ohio State U.*; Margene Stewart (part-time), M.F.A., *Ohio U.*; Sylvester Young, M.M., *Bowling Green State U.*; Ira Zook, D.M.A., *U. of Michigan.*

Asst. Prof: Tony Baker, M.M., *U. of Minnesota*; Paul Barte, D.M.A., *U. of Rochester*; Nancy Beebe (part-time), M.M., *Ohio U.*; Dorothy Bryant, Ph.D., *U. of Oklahoma*; Alison Freedy, M.M., *U. of Nebraska*; Pauline Gagliano (part-time), M.S., *U. of Illinois*; Matthew James, M.M., *U. of North Texas*; Patricia Pease, D.M.A., *Florida State U.*; Rebecca Rischin, D.M., *Florida State U.*; Mark Schroeder, M.M., *Cleveland Institute of Music*; John Schlabbach, M.M., *Northwestern U.*; C. Scott Smith, M.M., *Michigan State U.*; Richard Suk, M.M.E., *U. of Southern Mississippi.*

Nursing

Prof: Kathleen Rose-Grippa (director), Ph.D., *Stanford U.*

Assoc. Prof: Sharon Denham, D.S.N., *U. of Alabama, Birmingham.*

Asst. Prof: Maxine Knapp, Ph.D., *Ohio U.*; Emily Harman, M.S.N., *West Virginia U.*; Sharon Mullen, Ph.D., *Ohio U.*; Carla Phillips, Ph.D., *Ohio State U.*; Martha Rock, Ph.D., *U. of Delaware*; Kathleen Tennant, Ph.D., *Ohio U.*

Ohio Program of Intensive English

Lect: John Bagnole, M.A., *Georgetown U.*; Linn Forhan, M.A., *Ohio U.*; Cynthia Holliday, M.A., *SUNY, Albany*; Mary Kaye Jordan, M.A., *Ohio U.*; Greg Kessler, M.A., *California State U., Sacramento*; Gerald Krzic, Ph.D., *Ohio U.*; John McVicker, M.A., *U. of Kansas*; Charles Mickelson (director), M.A., *Ohio U.*; John Miller, M.A., *School of International Training*; Patrick Miller, M.A., *Ohio U.*; Michelle O'Malley, M.A., *Ohio U.*; Lia Plakans, M.A., *Iowa State U.*

College of Osteopathic Medicine

Biomedical Sciences

Goll Ohio Eminent Research Scholar: John Kopchick, Ph.D., *U. of Texas, Houston.*

Distinguished Prof: Robert S. Hikida, Ph.D., *U. of Illinois.*

Prof: Jack Blazyk, Ph.D., *Brown U.*; Joseph T. Eastman, Ph.D., *U. of Minnesota*; Fredrick Hagerman, Ph.D., *Ohio State U.*; Peter Johnson, Ph.D., *U. of Birmingham*; Joseph Jollick, Ph.D., *West Virginia U.*; William S. Romoser, Ph.D., *Ohio State U.*

Assoc. Prof: Huzoor Akbar, Ph.D., *Australian National U.*; Charles Atkins (emeritus, part-time), Ph.D., *North Carolina State U.*; Bonita Biegalka, Ph.D., *U. of Washington*; Audrone Biknevičius, Ph.D., *Johns Hopkins U.*; Kenneth Goodrum, Ph.D., *U. of Texas*; Frank Horodyski, Ph.D., *U. of California, San Diego*; John Howell, Ph.D., *U. of California, Los Angeles*; Calvin B. L. James, Ph.D., *Howard U.*; Richard Klabunde, Ph.D., *U. of Arizona*; Malcolm C. Modrzakowski, Ph.D., *U. of Georgia*; Ronald Portanova (chair), Ph.D., *Case Western Reserve U.*; Linda Ross, Ph.D., *U. of Texas*; Edwin C. Rowland, Ph.D., *Wake Forest U.*; Robert S. Staron, Ph.D., *Ohio U.*; Leon C. Wince, Ph.D., *West Virginia U.*

Asst. Prof: Mark Berryman, Ph.D., *U. of Virginia*; Xiao-Zhuo Chen, Ph.D., *Ohio U.*; Peter Coschigano, Ph.D., *Massachusetts Institute of Technology*; Lawrence Witmer, Ph.D., *Johns Hopkins U.*

Instr: Mary K. Eastman, M.S., *Ohio U.*; Lincoln Gotshalk, M.S., *Temple U.*

Department of Family Medicine

Trustee Prof: Frank W. Myers (emeritus, part-time), D.O., *University of Osteopathic Medicine and Human Sciences, Des Moines.*

Prof: John A. Brose, D.O., *U. of North Texas/Texas College of Osteopathic Medicine*; Anthony G. Chila, D.O., *U. of Health Sciences, College of Osteopathic Medicine, Kansas City*; Judith W. Rhue, Ph.D., *Ohio U.*; Barbara Ross-Lee (dean), D.O., *Michigan State U. College of Osteopathic Medicine.*

Assoc. Prof: David E. Brown, D.O., *U. of Health Sciences, College of Osteopathic Medicine, Kansas City*; Peter B. Dane, D.O., *Michigan State U. College of Osteopathic Medicine*; William F. Duerfeldt, D.O., *Kirkville College of Osteopathic Medicine*; Donald R. Furci (Doctors Hospital, Columbus), D.O., *Kirkville College of Osteopathic Medicine*; Karl Harnish, D.O., *Chicago College of Osteopathic Medicine*; John G. Horton, D.O., *Chicago College of Osteopathic Medicine*; Donna M. Mabry (part-time), Ph.D., *Ohio U.*; Daniel J. Marazon, D.O., *Kirkville College of Osteopathic Medicine*; Alfred M. Pheley (part-time), Ph.D., *U. of Minnesota*; Lenard G. Presutti, D.O., *University of*

Osteopathic Medicine and Surgery, Des Moines; Daniel J. Raub, D.O., M.A., *Philadelphia College of Osteopathic Medicine, Michigan State U.*; Gerald Rubin, D.O., *Philadelphia College of Osteopathic Medicine*; Robert G. Stockmal, D.O., Ph.D., *Philadelphia College of Osteopathic Medicine, Jefferson Medical College*; Anthony J. Tenoglia (part-time), D.O., *U. of Health Sciences, College of Osteopathic Medicine, Kansas City*; John C. Wolf, D.O., *Kirksville College of Osteopathic Medicine*.

Asst. Prof: William J. Burke (Doctors Hospital, Columbus), D.O., *Ohio U. College of Osteopathic Medicine*; Zachary J. Comeaux, D.O., *Ohio U. College of Osteopathic Medicine*; David C. Eland, D.O., *Kirksville College of Osteopathic Medicine*; Carol M. Gaines, D.O., *West Virginia School of Osteopathic Medicine*; Robert S. Gottfried, D.O., *Philadelphia College of Osteopathic Medicine*; Dale C. Pratt-Harrington, D.O., *Ohio U. College of Osteopathic Medicine*; Edward W. Schreck, D.O., *Chicago College of Osteopathic Medicine*; Jay H. Shubbrook, D.O., *Ohio U. College of Osteopathic Medicine*; Christopher Simpson, D.O., *Kirksville College of Osteopathic Medicine*; Martha A. Simpson, D.O., *Kirksville College of Osteopathic Medicine*; Donald G. Spaeth, D.O., Ph.D., *U. of Health Sciences College of Osteopathic Medicine, SUNY Buffalo*; David N. Stroh (chair), D.O., *Ohio U. College of Osteopathic Medicine*; Harold C. Thompson III, D.O., *Chicago College of Osteopathic Medicine*; Linda B. Tomc (part-time), D.O., *Ohio U. College of Osteopathic Medicine*.

Department of Social Medicine

Prof: Norman Gevitz (chair), Ph.D., *U. of Chicago*.

Assoc. Prof: Thomas Campanella (part-time), J.D., *Cleveland State U.*; Ann R. Fingar (part-time), M.D., MPH, *U. of Illinois College of Medicine, Ohio State U.*; Susanne E. Hatty, Ph.D., *U. of Sydney*; Marjorie E. Nelson, M.D., MPH, *Indiana U. School of Medicine, Yale U.*; Charlene E. Smith (part-time), Ph.D., *Ohio U.*; Robert M. Woodworth, D.O., MPH, *Chicago College of Osteopathic Medicine, U. of Oklahoma Health Sciences Center*.

Asst. Prof: Douglas D. Mann, Ph.D., *Ohio U.* Jacqueline H. Wolf, Ph.D., *U. of Illinois, Chicago*.

Instr: Michael A. Weiser (part-time), M.S., *Ohio U.*

Department of Specialty Medicine

Prof: Paul E. Cadamagnani, D.O., *Chicago College of Osteopathic Medicine*.

Assoc. Prof: James D. Bové III, D.O., *Philadelphia College of Osteopathic Medicine*; Steven G. Carin, D.O., *Philadelphia College of Osteopathic Medicine*; Gary Cordingly (part-time), M.D., *Duke U. Medical Center*; James E. Foglesong, D.O., *Kirksville College of Osteopathic Medicine*; Edward A. Gottfried (chair), D.O., *Philadelphia College of Osteopathic Medicine*; Scott A. Jenkinson, D.O., *Ohio U. College of Osteopathic Medicine*; James E. Sammons Jr., D.O., *Ohio U. College of Osteopathic Medicine*; James M. Sutherland, D.O., *Philadelphia College of Osteopathic Medicine*; Michael Tomc, D.O., *Ohio U. College of Osteopathic Medicine*.

Asst. Prof: Janice Carrick (part-time), D.O., *College of Osteopathic Medicine of the Pacific*; Jeffrey McAdoo (part-time), M.D., *Ohio State U. College of Medicine*; Mark McGee (part-time), M.D., *Ohio State U. College of Medicine*; Neal James Nesbitt (part-time), M.D., *U. of California, Los Angeles*; Kendall Stewart (part-time), M.D., *Medical College of Georgia*; Nili Urieli (part-time), D.O., *Ohio U. College of Osteopathic Medicine*.

Department of Geriatric Medicine/ Gerontology

Assoc. Prof: Allison J. Batchelor, M.D., *Medical College of Ohio at Toledo*; Wayne R. Carlsen (chair), D.O., *U. of Medicine and Dentistry of New Jersey, School of Osteopathic Medicine*.

Asst. Prof: Steven W. Clay, D.O., *Kirksville College of Osteopathic Medicine*; H. Stuart Edmiston, D.O., *Ohio U. College of Osteopathic Medicine*; Tracy L. Marx, D.O., *Ohio U. College of Osteopathic Medicine*.

Department of Pediatrics

Prof: J. Phillip Jones (chair), D.O., *U. of Health Sciences College of Osteopathic Medicine, Kansas City*.

Assoc. Prof: C. Thomas Clark, D.O., *U. of Osteopathic Medicine and Health Sciences, Des Moines*; Karen Montgomery-Reagan, D.O., *West Virginia School of Osteopathic Medicine*.

Asst. Prof: Susan Lawrence, D.O., *College of Osteopathic Medicine and Health Sciences, Des Moines*.

Department of Obstetrics/Gynecology

Assoc. Prof: J. Jack Chan, D.O., *Chicago College of Osteopathic Medicine*; Catherine A. Coats, D.O., *Chicago College of Osteopathic Medicine*; Kenneth P. Gliner (chair), D.O., *College of Osteopathic Medicine and Health Sciences, Des Moines*; Jack M. Ramey, D.O., *Kansas City College of Osteopathic Medicine*.

Philosophy

Trustee Prof: Charles J. Ping (president emeritus, part-time), Ph.D., *Duke U.*; David Stewart (emeritus, part-time), Ph.D., *Rice U.*

Prof: John Bender, Ph.D., *Harvard U.*; Gene Blocker (emeritus, part-time), Ph.D., *U. of California, Berkeley*; Donald Borchert (chair), Ph.D., *Princeton Theological Seminary*; Algis Mickunas, Ph.D., *Emory U.*; Albert Mosley, Ph.D., *U. of Wisconsin*.

Assoc. Prof: Elizabeth Collins, Ph.D., *U. of California, Berkeley*; Philip Ehrlich, Ph.D., *U. of Illinois, Chicago*; James Petrik, Ph.D., *Marquette U.*; Robert Trevas (part-time), Ph.D., *U. of Maryland*; George Weckman, Ph.D., *U. of Chicago*; Arthur Zucker, Ph.D., *U. of Minnesota*.

Asst. Prof: Scott Carson, Ph.D., *U. of North Carolina*; Mark LeBar, Ph.D., *U. of Arizona*; Miguel Vatter, Ph.D., *New School for Social Research*.

Physical Therapy

Assoc. Prof: Gary S. Chleboun, Ph.D., *Ohio U.*; Averell Overby (director), Dr.P.H., *U. of Texas*.

Asst. Prof: Dennis Cade, Ph.D., *Ohio U.*; Rosalind S. Hickenbottom, Ph.D., *Emory U.*; Douglas Kohn, Ph.D., *U. of New Mexico*.

Instr: Betty Willy (part-time), M.A., *U. of Michigan*.

Physics and Astronomy

Dist. Prof: Roger Finlay (emeritus, part-time), Ph.D., *Johns Hopkins U.*; Jacobo Rapaport (emeritus, part-time), Ph.D., *Massachusetts Institute of Technology*.

Prof: James Dille (emeritus, part-time), Ph.D., *Syracuse U.*; Steven M. Grimes, Ph.D., *U. of Wisconsin*; Kenneth Hicks, Ph.D., *U. of Colorado*; Earle Hunt (emeritus, part-time), Ph.D., *Rutgers U.*; Martin Kordesch, Ph.D., *Case Western Reserve U.*; David Onley (emeritus, part-time), D.Phil., *Oxford U.*; Roger Rollins, Ph.D., *Cornell U.*; Sergio Ulloa, Ph.D., *SUNY, Buffalo*; Louis Wright (chair), Ph.D., *Duke U.*; Seung Yun (emeritus, part-time), Ph.D., *Brown U.*

Assoc. Prof: Charles Brient, Ph.D., *U. of Texas*; David Drabold, Ph.D., *Washington U.*; Charlotte Elster, Dr. rer. nat., *U. of Bonn*; David Ingram, Ph.D., *Salford U.*; Peter Jung, Ph.D., *U. of Ulm*. Thomas S. Statler, Ph.D., *Princeton U.*

Asst. Prof: Clyde Baker, M.S., *Ohio U.*; Daniel S. Carman, Ph.D., *Indiana U.*; Jean J. Heremans, Ph.D., *Princeton U.*; Mark Lucas, Ph.D., *U. of Illinois*; Allena K. Oppen, Ph.D., *Indiana U.*; Bloomington; Joseph Shields, Ph.D., *U. of California, Berkeley*; Arthur Smith, Ph.D., *U. of Texas*; Victoria Soghomonian, Ph.D., *Syracuse U.*; Larry Wilen, Ph.D., *Princeton U.*

Political Science

Prof: Richard H. Bald (emeritus, part-time), Ph.D., *U. of Michigan*; Edward Baum (emeritus, part-time), Ph.D., *U. of California, Los Angeles*; David D. Dabelko, Ph.D., *U. of Illinois*; Felix V. Gagliano (emeritus, part-time), Ph.D., *U. of Illinois*; Harold Molineu, Ph.D., *American U.*; Michael J. Mumper, Ph.D., *U. of Maryland*; Patricia B. Richard, Ph.D., *Syracuse U.*; Joseph B. Tucker (emeritus, part-time), Ph.D., *U. of Illinois*; Thomas W. Walker, Ph.D., *U. of New Mexico*; Mark L. Weinberg, Ph.D., *U. of North Carolina*.

Assoc. Prof: Delysa Burnier, Ph.D., *U. of Illinois*; John R. Gilliom, Ph.D., *U. of Washington*; J. Franklin Henderson, Ph.D., *U. of Missouri*; Ronald J. Hunt, Ph.D., *Ohio State U.*; Sung Ho Kim, Ph.D., *Columbia U.*; Nancy J. Manring, Ph.D., *U. of Michigan*; Alexander V. Prisley, Ph.D., *Brown U.*; David L. Williams (chair), Ph.D., *Columbia U.*

Asst. Prof: Lisa M. Aubrey, Ph.D., *Ohio State U.*; Lisa J. Conant, Ph.D., *U. of Washington*; C. Ann Gordon, Ph.D., *U. of Southern California*; Michael Malley, Ph.D., *U. of Wisconsin*; Samuel P. Nelson, Ph.D., *U. of Wisconsin*; Lewis A. Randolph, Ph.D., *Ohio State U.*; Kole A. Shettima, Ph.D., *U. of Toronto*; Takaaki Suzuki, Ph.D., *Columbia U.*; Patricia Weitsman, Ph.D., *Columbia U.*; Julie A. White, Ph.D., *U. of Wisconsin*.

Psychology

Trustee Prof: James Bruning (provost emeritus), Ph.D., *U. of Iowa*.

Prof: Margret Appel, Ph.D., *U. of Denver*; Jack Arbutnot, Ph.D., *Cornell U.*; Hal Arkes, Ph.D., *U. of Michigan*; Francis Bellezza, Ph.D., *U. of Minnesota*; John Garske, Ph.D., *U. of California, Berkeley*; Donald Gordon, Ph.D., *U. of Alabama*; Kenneth Holroyd, Ph.D., *U. of Miami*; Francis J. Keefe, Ph.D., *Ohio U.*; Harry Kotses, Ph.D., *Michigan State U.*; Paul Lewis, Ph.D., *Bowling Green State U.*; Raymond P. Lorion (chair), Ph.D., *U. of Rochester*; John McNamara, Ph.D., *U. of Georgia*; Gary Schumacher, Ph.D., *Iowa State U.*

Assoc. Prof: Mark Alicke, Ph.D., *U. of North Carolina*; Bruce Carlson, Ph.D., *U. of Michigan*; Peter Chen, Ph.D., *U. of South Florida*; Christopher France, Ph.D., *McGill U.*; Christine

Gidycz, Ph.D., *Kent State U.*; David Johnson, Ph.D., *Ohio State U.*; G. Daniel Lassiter, Ph.D., *U. of Virginia*; Danny Moates, Ph.D., *Vanderbilt U.*; Benjamin Ogles, Ph.D., *Brigham Young U.*; Paula Popovich, Ph.D., *Michigan State U.*

Asst. Prof: Timothy Anderson, Ph.D., *Miami U.*; Patrick Drumm, Ph.D., *Ohio State U.*; Paul Gleason (part-time), Ph.D., *Pennsylvania State U.*; Claudia Gonzalez-Vallejo, Ph.D., *U. of North Carolina*; Jeanne Heaton (part-time), Ph.D., *Ohio U.*; Andrea Patalano, Ph.D., *U. of Michigan*; Stephen Patterson, Ph.D., *Uniformed Services U. of the Health Sciences*; Gary Sarver, Ph.D., *U. of Florida*; Jeffrey B. Vancouver, Ph.D., *Michigan State U.*; Julie Suhr, Ph.D., *U. of Iowa*; David Wallace, Ph.D., *Texas Christian U.*

Instr: James Short (part-time), M.A., *Ohio U.*

Recreation and Sport Sciences

Prof: Sue Ellen Miller, P.E.D., *Indiana U.*

Assoc. Prof: Tiff E. Cook, Ph.D., *Walden U.*; Keith D. Ernce (director), Ph.D., *U. of New Mexico*; Roger Gilders, Ph.D., *Ohio U.*; Charles R. Higgins (emeritus, part-time), Ed.D., *U. of North Carolina, Greensboro*; Andrew Kreutzer, Ph.D., *Ohio U.*; Robin Mittelstaedt, Ph.D., *U. of Oregon*; Beth VanDerveer, Ph.D., *Texas Woman's U.*

Asst. Prof: Marta Amaral-Melendez, Ph.D., *Louisiana State U.*; Catherine Brown (emerita, part-time), Ph.D., *Ohio State U.*; Matthew Brown, M.S., *Western Illinois U.*; Susan Bullard, Ph.D., *U. of Wisconsin*; David Carr, Ph.D., *Virginia Tech U.*; Richard Deivert, Ph.D., *Pennsylvania State U.*; Ronald Dingle (emeritus, part-time), M.S.P.E., *U. of Massachusetts*; David Jacoby (emeritus, part-time), Ph.D., *Ohio U.*; Joyce King (emerita, part-time), Ph.D., *Ohio State U.*; Mike Miller, Ed.D., *West Virginia U.*; Shari Perkins, R.E.D., *Indiana U.*; James Reese, M.S., *Georgia Southern U.*; Lynn Simon (emerita, part-time), P.E.D., *Indiana U.*; Ronald Whitaker, M.S.Ed., *Ohio U.*; Richard Woolson (emeritus, part-time), M.S.Ed., *Ohio U.*; D. Matthew Zueflu, Ph.D., *Texas A & M U.*

Instr: Carol Ault (part-time), M.S., *Ohio U.*; Trina Bookman, M.S., *Ohio U.*; John Bowman (part-time), M.S.Ed., *U. of Virginia*; Thomas Murray (part-time), M.A., *Ohio U.*; Sharon Noel (part-time), M.S.P.E., *Ohio U.*

Social Work

Assoc. Prof: Miriam Clubok, M.S.W., *Wayne State U.*; Richard W. Greenlee, Ph.D., *Ohio State U.*; Thomas Oellerich, Ph.D., *Case Western Reserve U.*; Carolyn Tice (chair), D.S.W., *U. of Pennsylvania*.

Asst. Prof: Steven Hartsock, Ph.D., *U. of Maryland*; Susan Sarnoff, D.S.W., *Adelphi U.*; Karen Slovak, Ph.D., *Case Western Reserve U.*

Instr: Freve Pace, M.S.W., *Ohio State U.*

Sociology and Anthropology

Prof: Tibor Koertvelyessy, Ph.D., *SUNY, Buffalo*; Lena Wright Myers, Ph.D., *Michigan State U.*; Martin Schwartz (chair), Ph.D., *U. of Kentucky*; Robert Sheak (emeritus, part-time), Ph.D., *Washington U.*; Robert Shelly, Ph.D., *Michigan State U.*; Alex Thio (emeritus, part-time), Ph.D., *SUNY, Buffalo*; Ann Tickamyer, Ph.D., *U. of North Carolina*.

Assoc. Prof: Elliot Abrams, Ph.D., *Pennsylvania State U.*; E. Leon Anderson, Ph.D., *U. of Texas*; Diane M. Ciekawy, Ph.D., *Columbia U.*; Bruce

Ergood (part-time), Ph.D., *U. of Florida*; AnnCorinne Freter-Abrams, Ph.D., *Pennsylvania State U.*; Girard Krebs (part-time), Ph.D., *Cornell U.*; Bruce Kuhre (emeritus, part-time), Ph.D., *Pennsylvania State U.*; Christine Mattley, Ph.D., *Washington State U.*; Don Shamblin (part-time), Ph.D., *SUNY, Buffalo*.

Asst. Prof: Eugene Ammarell, Ph.D., *Yale U.*; V. Aileen Hall (part-time), Ph.D., *Kent State U.*; Debra Henderson, Ph.D., *Washington State U.*; Amanda Konradi, Ph.D., *U. of California, Santa Cruz*; Mary Beth Krouse, Ph.D., *Ohio State U.*; Jie-Li Li, Ph.D., *U. of California, Riverside*; Rick Matthews, Ph.D., *Western Michigan U.*; Michael Maume, Ph.D., *Louisiana State U.*; William Miller, Ph.D., *U. of Nevada, Las Vegas*; Steven Rubenstein, Ph.D., *Columbia U.*

Telecommunications

Prof: Don Flournoy, Ph.D., *U. of Texas*; Kathy A. Krendl (dean), Ph.D., *U. of Michigan*; Drew McDaniel, Ph.D., *Ohio U.*; William Miller, Ph.D., *U. of Southern California*; David Mould, Ph.D., *Ohio U.*; Josep Rota, Ph.D., *Michigan State U.*; Joseph Slade, Ph.D., *New York U.*

Assoc. Prof: Duncan Brown, Ph.D., *U. of Illinois*; Vibert Cambridge, Ph.D., *Ohio U.*; Charles Clift III (emeritus, part-time), Ph.D., *Indiana U.*; George Korn (director), Ph.D., *Southern Illinois U.*; Jenny Nelson, Ph.D., *Southern Illinois U.*; Jeff Redefier, M.A., *Ohio U.*; Karin Sandell, Ph.D., *U. of Iowa*.

Asst. Prof: Sandra Sleight-Brennan (part-time), B.G.S., *Ohio U.*; Arthur C. Cromwell, Ph.D., *Ohio U.*; Roger Good, M.A., *Ohio U.*; Norma Pecora, Ph.D., *U. of Illinois*; Joseph Richie, M.M.A., *U. of South Carolina*.

Instr: Sheila Wurtsbaugh (part-time), M.A., *Ohio U.*

Theater

Prof: Ursula Belden, M.F.A., *Yale U.*; William F. Condee, Ph.D., *Columbia U.*; Dennis Dalen (emeritus, part-time), M.A., *U. of Kansas*; George Sherman (emeritus, part-time), M.F.A., *Yale U.*; Robert L. Winters, M.A., *Michigan State U.*

Assoc. Prof: Vincent J. Cardinal (director), M.F.A., *Yale U.*; Holly Cole, M.F.A., *Carnegie Mellon U.*; William Fisher, B.A., *Indiana U.*; L. S. Frazee, M.A., *Pennsylvania State U.*; Andrew Manley, Diploma, *Central School of Speech & Drama, London*; Laura Parrotti, M.A., *SUNY, Binghamton*; Robert St. Lawrence, M.A., *U. of Pittsburgh*; Charles Smith, M.F.A., *U. of Iowa*.

Asst. Prof: Donald Jordon, Diplôme, *Ecole Jacques Lecoq, Paris*; Richard Perloff, M.F.A., *California State U., Long Beach*.

Visual Communication

Prof: Terrill Eiler, M.F.A., *Ohio U.*; Larry Nighswander (director), B.B.A., *Bowling Green State U.*

Assoc. Prof: Marcia Nighswander, B.S.J., *Bowling Green State U.*

Asst. Prof: Samuel Girton, M.F.A., *Ohio U.*; Gary Kirksey, M.A., *Ohio U.*; William R. Schneider, M.F.A., *Ohio U.*; Christina L. Ullman, M.S.J., *Ohio U.*

Assoc. Prof: Bobby Christian (physical education), M.Ed., *Ohio U.*; Dennis Deane (art/photography), M.F.A., *U. of North Carolina*; Ronald S. Elliott (computer science), Ph.D., *Ohio U.*; David H. Gigley (office administration technology), M.Ed., *U. of Cincinnati*; David O. Harding (law enforcement), M.S., *Eastern Kentucky U.*; Glenn R. Mackin (political science; emeritus, part-time), M.A., *Ohio U.*; Gene Mapes (plant biology; part-time), Ph.D., *Ohio U.*; Margaret McAdams (art), M.F.A., *Washington U.*; Jan Schmittauer (English), Ph.D., *Ohio State U.*; Hamid Shahrestani (economics), Ph.D., *U. of Cincinnati*; Arun C. Venkatachar (physics), Ph.D., *Northern Texas State U.*; Richard A. Whinery (human services technology), Ph.D., *U. of Akron*.

Asst. Prof: Erin Ashley Bannon (sociology), Ph.D., *Ohio State U.*; Thomas P. Brown (business management technology), M.B.A., *Ohio U.*; Gary Elkin (law enforcement technology), M.S., *Eastern Kentucky U.*; Franco Guerriero (mathematics), Ph.D., *McMaster U.*; Blaine Keckley (law enforcement technology), M.S., *Pennsylvania State U.*; Richard Kowieski (interpersonal communication), Ph.D., *Ohio U.*; Mary Lynd (nursing), M.S.N., *U. of Cincinnati*; Charlotte McManus (nursing), M.S.N., *Wright State U.*; Vicky Parker (nursing), M.S.N., *Wright State U.*; Leonard Powlick (English), Ph.D., *U. of Pittsburgh*; Richard Sandy (mathematics), M.S., *Michigan State U.*; Christi Simmons (business management technology), Ph.D., *U. of Cincinnati*; Ruth Zajdel (office administration technology), M.Ed., *U. of Cincinnati*.

Instr: Ken Breidenbaugh (comparative arts), Ph.D., *Ohio U.*; Janet Duval (human services technology), M.S., *Ohio U.*; Lawrence Gingerich (hazardous materials technology), M.S., *West Virginia U.*; Lisa Kauffman (nursing), M.S.N., *Wright State U.*; Michael Laffreniere (hazardous materials technology), M.S., *U. of Florida*; Cindy Matyi (psychology), Ph.D., *Ohio U.*; J. Dale Maxey (anthropology), Ph.D., *Ohio State U.*; Denise Minor (nursing), M.S.N., *Capital U.*; Joseph Reass (law enforcement technology), B.A., *Capital U.*; Charlotte Souers (nursing), M.S.N., *Bellarmine College*; Roger Smith (chemistry), M.S., *Ohio State U.*

Eastern Campus (St. Clairsville)

Prof: James Kettler (physics), Ph.D., *West Virginia U.*

Assoc. Prof: Lawrence Bush (mathematics; part-time), M.S., *Ohio U.*; Thomas P. Flynn (English), Ph.D., *Ohio U.*; Adam Glandomenico (hearing and speech sciences; emeritus, part-time), Ph.D., *Case Western Reserve U.*; James W. Newton (geography and urban planning; dean), Ph.D., *U. of North Carolina*.

Asst. Prof: Justin Bailey (psychology), M.A., *Truman State U.*; Steven Bourquin (mathematics); Ph.D., *Ohio U.*; James Casebolt (psychology), Ph.D., *U. of North Carolina*; David Castle (history), Ph.D., *U. of Oregon*; Felicia Greer (exercise physiology), M.S., *Queens U.*; Joseph Hudak (health and sport sciences), Ph.D., *U. of Toledo*; Sarah Mahan-Hays (interpersonal

Chillicothe Campus

Prof: Veena Kasbekar (English), Ph.D., *U. of Cincinnati*; John F. Reiger (history), Ph.D., *Northwestern U.*; Ronald Salomone (English), Ph.D., *Indiana U.*

communication), Ph.D., *Ohio U.*; Kay Mansuetto (botany), M.S., *U. of South Carolina*; Richard McMann (sociology), Ph.D., *Ohio U.*; Michael McTeague (history), M.A., *Ohio U.*; David Miles (comparative arts; part-time), M.A., *Northeast Missouri State College*; Ronald Nate (economics), Ph.D., *U. of Connecticut*; David Noble (English), D.A., *Carnegie Mellon U.*; Michael Nojeim (political science), Ph.D., *American U.*; John Prather (mathematics), Ph.D., *U. of Kentucky*; Kathleen Van Voorst (computer science), M.S., *Northwest Missouri State*; Mark Waters (biology), Ph.D., *U. of Tennessee*; Samuel Weaver (history), Ph.D., *American U.*; Howard Wisch (philosophy; part-time), M.A., *CUNY*; Kuruvilla Zachariah (chemistry), Ph.D., *Oklahoma State U.*

Instr: Beverly Bell (education), Ph.D., *Ohio U.*; Donald Chamberlain (health and human services) B.S., *West Liberty State College*; Thomas Doeppen (art; part-time), M.F.A., *Ohio U.*; Dennis Fox (theater; part-time), M.A., *Ohio State U.*; Michael Kaiser (guidance and counseling; part-time), Ph.D., *Ohio U.*; Eileen McCormack (communication; part-time), M.A., *U. of Pittsburgh*; Lucien Murzyn (health and sport sciences; part-time), M.Ed., *U. of New Orleans*; Daniel Stern (sociology; part-time), M.A., *U. of Pittsburgh*; Patrick Wood (English; part-time), M.A., *West Virginia U.*

Lancaster Campus

Prof: Carol Christy (political science), Ph.D., *Ohio State U.*

Assoc. Prof: Larry Ault (economics), M.A., *Ohio U.*; Andrea Baker (sociology), Ph.D., *Case Western Reserve U.*; Gary Baldwin (mathematics), M.S., *U. of Illinois*; Sonny Baxter (geology), Ph.D., *Ohio State U.*; David Collopy (computer science technology), M.S., *Ohio U.*; Jan Cox (emeritus, mathematics; part-time), M.Ed., *U. of Michigan U.*; Peter Desy (English; emeritus, part-time), Ph.D., *Kent State U.*; Shun Endo (art), M.F.A., *Temple U.*; Karen Evans (interpersonal communication), Ph.D., *Southern Illinois U.*; John Faulkner (English), Ph.D., *Rutgers U.*; Edward Fitzgibbon (history), Ph.D., *Ohio State U.*; Kenneth Heineman (history), Ph.D., *U. of Pittsburgh*; Fred Herr (accounting; emeritus, part-time), M.S., *Kent State U.*; Frederick Kalister (English; emeritus, part-time), Ph.D., *Ohio U.*; Larry Kerr (psychology), Ph.D., *U. of California, Los Angeles*; Helen Killoran (English), Ph.D., *U. of Washington*; Dennis Lupher (economics; emeritus, part-time), Ph.D., *Ohio U.*; Susan Maxwell (medical assisting technology), M.A., *U. of Kentucky*; Zale Maxwell (industrial technology), M.Ed., *Ohio U.*; Steve Nerney (physics), Ph.D., *U. of Colorado*; Stephen Noltie (mathematics), Ph.D., *U. of California, Riverside*; Lorraine Ray (office management technology), M.Ed., *U. of Toledo*; William Stevens (electronics technology), Ph.D., *Ohio U.*; Jeffery Wagner (theater; emeritus, part-time), M.F.A., *Ohio U.*; Larry Wilson (chemistry; emeritus, part-time), Ph.D., *Ohio State U.*; Paul Yuckman (English), Ph.D., *Ohio U.*

Asst. Prof: James Barron (biology), Ph.D., *Indiana U.*; Janet Becker (accounting technology), M.B.A., *U. of Pittsburgh*; Kathy Buxie (mathematics), Ph.D., *U. of Kansas*; Qiuping Cao (child development), Ph.D., *SUNY, Buffalo*; Brian Hoyt (business management technology), M.B.A., *Bryant School of Business*; Jane Johnsen (education), Ph.D., *Ohio State U.*; Martha Kline (chemistry), Ph.D., *U. of North Carolina*; Gary Lockwood (engineering), M.S., *Ohio State U.*; John Zimmerman (mathematics), M.A., *Bowling Green State U.*

Instr: Dee Anderson (English), B.A., *Ohio State U.*; Arthur Bickham (business management technology), M.B.A., *Xavier U.*; Anton Chin (mathematics), M.S., *Ohio State U.*; John Clay (physical education), B.G.S., *Ohio U.*; Debbora Clegg (English), M.A., *Ohio State U.*; Anthony Davenport (art), M.F.A., *SUNY, New Paltz*; Terri Green (education), M.A., *Ohio State U.*; Lisa Jacobellis (art history), M.A., *Ohio State U.*; Larry Lamb (electronics technology), M.S., *Ohio U.*; Larry McElwee (classical languages), Ph.D., *SUNY, Albany*; Gisela Meckstroth (office management technology), M.A., *Ohio State U.*; Becky Parrish (mathematics), B.S., *Ohio U.*; Robert Trocchia (music), B.Ed., *Ohio U.*; Gertrude Young (music), M.A., *Ohio U.*; Paul Young (music), Ph.D., *Ohio U.*

Southern Campus

Prof: Bill Dingus (dean; business), Ph.D., *Ohio U.*

Assoc. Prof: Michael A. Millay (botany), Ph.D., *U. of Illinois*.

Asst. Prof: Lacey Strafford Curtis (psychology), Ph.D., *Ohio U.*; David M. Lucas (communication), Ph.D., *Ohio U.*; Rebecca F. McNeer (English), Ph.D., *Ohio U.*

Instr: Rena Allen (education, part-time), M.A., *Marshall U.*; Ronald Andrews (accounting), M.B.A., *Miami U.*; Donald Baker (math/electronic technology), Ph.D., *Ohio U.*; Danny Bentley (biology, part-time), Ph.D., *U. of Kentucky*; Kathy Cain (math/geography), M.A., *Ohio U.*; Mikiko Crawford (interpersonal communication), M.A., *Ohio U.*; Robert Culp (chemistry), Ph.D., *U. of Alabama*; Kelly Davidson (equine studies), M.S., *U. of Kentucky*; John Davis (biology, part-time), D.D.S., *Ohio State U.*; Donna Dingus (math, part-time), M.B.A., *Ohio State U.*; Edward Duffy (sociology, part-time), Ph.D., *Duke U.*; Ella Gannon (office technology), M.B.A., *Morehead State U.*; Steve Harvey (chemistry, part-time), M.A., *Marshall U.*; Robert Leith (history), M.A., *Union College*; Lacey Litteral (English), M.A., *Ohio U.*; Connie Mays (math/equine studies), M.A., *Marshall U.*; Patrick McCoy (comparative arts/music), Ph.D., *Ohio U.*; William Rau (business), M.B.A., *Ohio U.*; Judith Sanders (University College), M.A., *Marshall U.*; Ronald Sims (psychology), M.S., *Ohio U.*; Terry Spivey (political science, part-time), M.A., *Ohio U.*; Tom Suter (fine arts), M.A., *Miami U.*; Gary Tillis (fine arts), M.A., *Marshall U.*; Mary Toothman (equine studies), D.V.M., *Tuskegee U.*; Sharon Yates (education), Ed.D., *West Virginia U.*

Zanesville Campus

Prof: John J. Arnold (philosophy), J.D., *Capital U.*, Ph.D., *Hartford Seminary Foundation*; Richard J. Brumbaugh (chemistry), Ph.D., *Ohio U.*; James Fonseca (dean; geography), Ph.D., *Clark U.*; James E. Jordan (political science), Ph.D., *U. of Michigan*.

Assoc. Prof: John W. Benson (zoology), Ph.D., *Michigan State U.*; Melissa Bixler (physical education), Ph.D., *Ohio State U.*; Thomas L. Bixler (physical education, part-time), M.Ed., *Ohio U.*; George Brooks (zoology), Ed.D., *Ball State U.*; Judith A. Davis (part-time, nursing), M.S., *Ohio State U.*; Deborah E. Henderson (nursing), Ph.D., *Ohio U.*; Marcia Herman (emeritus, music; part-time), M.F.A., *Ohio U.*; John R. Kelbley (English), M.A., *Ohio U.*; Michael J. Kline (history), M.A., *Ohio U.*; Robert A. Rider (mathematics), M.A., *Bowling Green State U.*; Vicki L. Sharrer (nursing), M.S., *Ohio State U.*; Mark A. Shatz (psychology), Ph.D., *U. of Florida*; Sheida Shirvani (interpersonal communication), Ph.D., *North Texas State U.*; Parinbam K. Thamburaj (chemistry), Ph.D., *Kent State U.*; George L. Ware III (English), M.A., *Ohio U.*; Gerald L. Westgerdes (fine arts), M.F.A., *Otis Art Institute*.

Asst. Prof: Beverly Bell (education, part-time), Ph.D., *Ohio U.*; William P. Christy (fine arts), M.M., *Ohio U.*; Jon C. Durst (sociology, part-time), Ph.D., *Ohio State U.*; Sally J. Fusner (nursing), M.S., *Ohio State U.*; Mary Ann Goetz (nursing), M.S., *U. of Maryland*; Gloria Heine (computer science, part-time) B.S., *Ohio U.*; James W. Hoefler (economics), M.A., *Ohio U.*; Linda L. Hunt (nursing), Ph.D., *Ohio U.*; Craig D. Laubenthal (education; part-time), Ph.D., *Michigan State U.*; Mike Nern (English), M.A., *Ohio U.*; Rick Shriver (electronic media), M.A., *Ohio U.*; Alta Sims (humanities, part-time), M.A., *Kent State U.*; Sharon Staib (nursing), M.S., *Ohio State U.*; Thomas B. Stevenson (anthropology, part-time), Ph.D., *Wayne State U.*; Cynthia B. Tuck (nursing), M.S., *Ohio State U.*

Instr: Marilyn Baker (mathematics), M.A.T., *Vanderbilt U.*; Timothy Blake (nursing; part-time), M.S., *Ohio State U.*; Karen Brown (modern languages; part-time), M.A., *U. of Wisconsin*; Freida Douthitt (English), M.A., *U. of Illinois*; Stacie L. Sweet (nursing; part-time), B.S.N., *Ohio U.*

Ohio Residency

It is the responsibility of the student to report a change of address and/or residency from an Ohio resident to a non-Ohio resident at the Office of Student Records. If the student's residency has changed to an Ohio resident, he or she must file a residency petition with the Office of Graduate Student Services. No change of residency can be made until the residency petition has been approved by a university examiner. Questions concerning residency should be directed to the Office of Graduate Student Services.

The residency rules described below were adopted by the Ohio Board of Regents effective November 1, 1989. The rules are subject to change without notice by the Ohio Board of Regents or the Ohio General Assembly.

A Intent and Authority

1 It is the intent of the Ohio Board of Regents in promulgating this rule to exclude from treatment as residents, as that term is applied here, those persons who are present in the state of Ohio primarily for the purpose of receiving the benefit of a state-supported education.

2 This rule is adopted pursuant to Chapter 119 of the Revised Code, and under the authority conferred upon the Ohio Board of Regents by Section 3333.31 of the Revised Code. Effective date: November 1, 1989.

B Definitions

For purposes of this rule:

1 A "resident of Ohio for all other legal purposes" shall mean any person who maintains a 12-month place or places of residence in Ohio, who is qualified as a resident to vote in Ohio and receive state welfare benefits, and who may be subjected to tax liability under Section 5747.02 of the Revised Code, provided such person has not, within the time prescribed by this rule, declared himself or herself to be or allowed himself or herself to remain a resident of any other state or nation for any of these or other purposes.

2 "Financial support" as used in this rule, shall not include grants, scholarships, and awards from persons or entities which are not related to the recipient.

3 An "institution of higher education" as used in this rule shall mean any university, community college, technical institute or college, general and technical college, medical college, or private medical or dental college which receives a direct subsidy from the state of Ohio.

4 For the purpose of determining residency for tuition surcharge purposes at Ohio's state-assisted colleges and universities, "domicile" is a person's permanent place of abode; there must exist a demonstrated intent to live permanently in Ohio, and a legal ability under federal and state law to reside permanently in the state. For the purpose of this policy, only one (1) domicile may be maintained at a given time.

5 For the purpose of determining residency for tuition surcharge purposes at Ohio's state-assisted colleges and universities, an individual's immigration status will not preclude an individual from obtaining resident status if that individual has the current legal status to remain permanently in the United States.

C Residency for subsidy and tuition surcharge purposes

The following persons shall be classified as residents of the state of Ohio for subsidy and tuition surcharge purposes:

1 A dependent student, at least one of whose parents or legal guardian has been a resident of the state of Ohio for all other legal purposes for 12 consecutive months or more immediately preceding the enrollment of such student in an institution of higher education.

2 A person who has been a resident of Ohio for the purpose of this rule for at least 12 consecutive months immediately preceding his or her enrollment in an institution of higher education and who is not receiving, and has not directly or indirectly received in the preceding 12 consecutive months, financial support from persons or entities who are not residents of Ohio for all other legal purposes.

3 A dependent child of a parent or legal guardian, or the spouse of a person who, as of the first day of a term of enrollment, has accepted full-time, self-sustaining employment and established domicile in the state of Ohio for reasons other than gaining the benefit of favorable tuition rates.

Documentation of full-time employment and domicile shall include both of the following documents:

a a sworn statement from the employer or the employer's representative on the letterhead of the employer or the employer's representative certifying that the parent or spouse of the student is employed full-time in Ohio.

b a copy of the lease under which the parent or spouse is lessee and occupant of rented residential property in the state; a copy of the closing statement on residential real property located in Ohio of which the parent or spouse is the owner and occupant; or if the parent or spouse is not the lessee or owner of the residence in which he or she has established domicile, a letter from the owner of the residence certifying that the parent or spouse resides at that residence.

D Additional criteria which may be considered in determining residency for the purpose may include but are not limited to the following:

1 Criteria evidencing residency:

- a** if a person is subject to tax liability under Section 5747.02 of the Revised Code;
- b** if a person qualifies to vote in Ohio;
- c** if a person is eligible to receive state welfare benefits;
- d** if a person has an Ohio driver's license and/or motor vehicle registration.

2 Criteria evidencing lack of residency:

- a** if a person is a resident or intends to be a resident of another state or nation for the purposes of tax liability, voting, receipt of welfare benefits, or student loan benefits (if the student qualified for that loan program by being a resident of that state or nation);
- b** if a person is a resident or intends to be a resident of another state or nation for any purpose other than tax liability, voting, or receipt of welfare benefits. (See paragraph 2., a. of this rule.)

E Exceptions to the general rule of residency for subsidy and tuition purposes

1 A person who is living and is gainfully employed on a full-time or part-time and self-sustaining basis in Ohio and who is pursuing a part-time program of instruction at an institution of higher education shall be considered a resident of Ohio for these purposes.

2 A person who enters and currently remains upon active duty status in the United States military service while a resident of Ohio for all other legal purposes and his or her dependents shall be considered residents of Ohio for these purposes as long as Ohio remains the state of such person's domicile.

3 A person on active duty status in the United States military service who is stationed and resides in Ohio and his or her dependents shall be considered residents of Ohio for these purposes.

4 A person who is transferred by his or her employer beyond the territorial limits of the 50 states of the United States and the District of Columbia while a resident of Ohio for all other legal purposes and his or her dependents shall be considered residents of Ohio for these purposes as long as Ohio remains the state of such person's domicile as long as such person has fulfilled his or her tax liability to the state of Ohio for at least the tax year preceding enrollment.

5 A person who has been employed as a migrant worker in the state of Ohio and his or her dependents shall be considered a resident for these purposes, provided such person has worked in Ohio at least four months during each of the three years preceding the proposed enrollment.

F Procedures

1 A dependent person classified as a resident of Ohio for these purposes under the provisions of paragraph (C) (1) of this rule and who is enrolled in an institution of higher education when his or her parents or legal guardian removes their residency from the state of Ohio shall continue to be considered a resident during continuous full-time enrollment and until his or her completion of any one academic degree program.

2 In considering residency, removal of the student or the student's parents or legal guardian from Ohio shall not, during a period of 12 months following such removal, constitute relinquishment of Ohio residency status otherwise established under paragraph (C) (1) or (C) (2) of this rule.

3 For students who qualify for residency status under paragraph (C) (3) of this rule, residency status is lost immediately if the employed person upon whom resident student status was based accepts employment and establishes domicile outside Ohio less than 12 months after accepting employment and establishing domicile in Ohio.

4 Any person once classified as a nonresident, upon the completion of 12 consecutive months of residency, must apply to the institution he or she attends for reclassification as a resident of Ohio for these purposes if such person in fact wants to be reclassified as a resident. Should such person present clear and convincing proof that no part of his or her financial support is or in the preceding 12 consecutive months has been provided directly or indirectly by persons or entities who are not residents of Ohio for all other legal purposes, such person shall be reclassified as a resident.

5 Any reclassification of a person who was once classified as a nonresident for these purposes shall have prospective application only from the date of such reclassification.

6 Any institution of higher education charged with reporting student enrollment to the Ohio Board of Regents for state subsidy purposes and for assessing the tuition surcharge shall provide individual students with a fair and adequate opportunity to present proof of his or her Ohio residency for purposes of this rule. Such an institution may require the submission of affidavits and other documentary evidence which it may deem necessary to a full and complete determination under this rule.

Student Records Policy

Underlying Principles

Ohio University's commitment to its educational mission and to the students and society it is obligated to serve demands that it maintain various records. No education records will be maintained that are not directly related to the basic purposes of the university. All policies and practices governing the collection, maintenance, review, and release of records will be based upon the principles of confidentiality and the student's right to privacy, consistent with the Family Educational Rights and Privacy Act of 1974. This policy shall govern the collection, maintenance, review, and release of student records on the Athens and regional campuses of Ohio University. A student is herein defined to mean any person for whom the university maintains education records or personally identifiable information, but does not include a person who has not been in attendance at the university or any of its regional campuses.

Types of Records

The university recognizes two general types of records: education records and unofficial records.

A Education Records

Education records are those records which are directly related to a present or former student in any form (e.g., print, electronic, microfilm, etc.), which contain information directly related to a present or former student, and which are maintained by the university or by a person acting for the university. Education records shall be subject to the principles regarding collection, maintenance, review, and release which are described below.

Education records include, but are not limited to, the following:

- 1 Admissions records maintained by the Office of Admissions, the College of Osteopathic Medicine, and the Office of Graduate Student Services. The director of admissions, the dean of the College of Osteopathic Medicine, or the associate provost for graduate and research programs are the official custodians of these records;
- 2 Academic records maintained by the dean of the student's college; academic departments; the Registrar's Office; and the Office of Lifelong Learning. The registrar, the deans of the colleges, or the chairpersons of the departments are the official custodians of these records;
- 3 Disciplinary records maintained by the University Judiciaries. The director of Judiciaries is the official custodian of these records;
- 4 Financial aid and student employment records maintained by the Office of Student Financial Aid and Scholarships. The director of the Office of Student Financial Aid and Scholarships is the official custodian of these records;
- 5 Placement records maintained by the Office of Career Services. The director of Career Services is the official custodian of these records;
- 6 Housing records, including contract and lease agreements, maintained by the Housing Office. The director of Housing is the official custodian of these records;
- 7 Financial records by offices which initiate, collect, and record fees assessed and paid;
- 8 International student records. The director of International Student and Faculty Services is the custodian of these records;

9 Any and all other records not specifically designated as unofficial records under subsection b., maintained by a university office or agency as essential to fulfilling the basic purpose and responsibility of the office or agency. The university official responsible for that office or agency is the official custodian of these records.

B Unofficial Records

Unofficial records include:

- 1 Records of institutional, supervisory, and administrative personnel, and faculty and educational personnel ancillary thereto which are in the sole possession of the maker thereof and which are not accessible by or revealed to any other person except a substitute. A substitute means an individual who performs on a temporary basis the duties of the individual who made the record and does not refer to an individual who permanently succeeds the maker of the records in his or her position;
- 2 Records and documents of the Department of Campus Safety, provided that the records and documents are kept apart from the records described in subsection a. of this section, which are maintained solely for law enforcement purposes, and which are not available to persons other than law enforcement officials of the same jurisdiction or other university law enforcement personnel;
- 3 In the case of persons who are employed by the university but who are not in attendance, records made and maintained in the normal course of business which are related exclusively to such person in his or her capacity as an employee and which are not available for use for any other purpose;
- 4 Records which are created or maintained by a physician, psychiatrist, psychologist, or other recognized professional or paraprofessional acting in his or her professional capacity, and which are created, maintained, or used only in connection with the provision of treatment to the student, and which are not available to anyone other than persons providing such treatment; provided, however, that such records can be personally reviewed upon written notice by the student, by a physician, or by other appropriate professional of the student's choice;
- 5 Directory information, including the student's name, address, telephone number, date and place of birth, major field of study, participation in officially recognized activities and sports, weight and height of members of athletic teams, dates of attendance, degrees and awards received, most recent previous

educational agency or institution attended by the student, and other similar information; subject, however, to the limitation stated under the Release of Student Records section below.

Maintenance of Records

Education records shall be maintained only by university administrative personnel assigned responsibility for each of the types of records listed in the Types of Records section above. All university personnel involved in the handling and maintenance of education records shall be instructed concerning the confidential nature of such information and their responsibilities regarding it, pursuant to this policy and the Family Educational Rights and Privacy Act of 1974. This instruction should be a part of each office's orientation procedure.

Persons Authorized to Place Materials in Records Files

Only the following qualified persons are permitted to place information in an education records file: personnel in the office or agency responsible for maintaining the files, and the individual student or others at the request of and, therefore, with the consent of the student.

Challenging or Removing File Contents

A student has the right to a formal hearing, pursuant to and in compliance with sections 99.20 through 99.22 of the Regulations to the Family Educational Rights and Privacy Act of 1974, to challenge the content of such student's education records in order to ensure that the records are not inaccurate, mis-leading, or otherwise in violation of the privacy or other rights of students, and to provide an opportunity for the correction or deletion of any such inaccurate, misleading, or otherwise inappropriate data contained therein, and to insert into such records a written explanation respecting the content of such records.

However, the student shall first attempt to informally resolve his or her grievance through the department chair, dean of his or her college, or, in the case of other records, through the administrative officer responsible for maintaining the records. The office responsible for maintaining the records may charge a reasonable fee, but not more than \$2 per page, for the reproduction of the records. The department chair, dean, or administrative officer, after careful review of the facts surrounding the challenge, shall inform the student, in writing and within five (5) days after the student presents the challenge, of his or her decision and any corrective action that will be taken.

If the student is dissatisfied with the results of his or her informal challenge through the department chair, dean, or administrative officer, he or she shall then file a formal complaint.

Student Access to Records

A student who is or has been in attendance at Ohio University shall have the right to inspect and review the contents of his or education records, subject only to reasonable arrangements concerning time, place, supervision, and cost of reproduction of the records, but in no case shall the time be more than thirty (30) days after a request has been made. Costs of each reproduction shall not be greater than \$2 per page. Exceptions to this general right of review are:

- a** Confidential financial records of the student's parents or any information contained therein;
- b** Confidential letters and statements of recommendation, which were placed in the education records prior to January 1, 1975, as long as such letters or statements are not used for purposes other than those for which they were specifically intended, as determined by the administrative officer responsible for the office or agency where the record is kept;
- c** Unauthorized access to computer/electronic files;
- d** If the student has signed a waiver of the student's right of access under this section and the Family Educational Rights and Privacy Act of 1974, confidential recommendations respecting admission to any educational agency or institution, respecting an application for employment, or respecting the receipt of an honor or honorary recognition.

A student or a person applying for admission may waive his or her right of access to confidential statements described in subsection b. of this section, except that such waiver shall apply to recommendations only if the student is, upon request, notified of the names of all persons making confidential recommendations, and such recommendations are used solely for the purpose for which they were specifically intended. The student may revoke, in writing, the previous waiver of his or her right to access to confidential statements or recommendations. Such revocation shall only apply to confidential statements or recommendations placed in the record after the waiver has been revoked. Such waivers may not be required as a condition for admission to, receipt of financial aid from, or receipt of any other services or benefits from the university.

Release of Student Records

Student records at Ohio University are held in trust by the university for the mutual benefit of the student and the educational mission of the university. Therefore, except with the prior written consent of the student, or as otherwise stated below, no information in any student education record file may be released to any individuals or organization.

- a** Record-keeping personnel may have access to student education records according to the conditions stipulated in the Maintenance of Records section above.
- b** Members of the faculty and staff and other persons demonstrating a legitimate educational interest may have access to student education records for internal educational purposes or for necessary administrative and statistical purposes only. The legitimate educational interest will be determined by the university official responsible for the particular student's education record. Legitimate educational interest is used here in its traditional and classical sense. It means that, in order to serve students and the university, careful, considerate, and responsible judgments must be made by professional people who are responsible and accountable for these judgments. The rights of grievance and appeal are available to the student through the responsible official.

c Direct access to financial, medical, psychological, and placement files is limited to the professional and clerical staff responsible for those matters.

d The following information will be considered public and may be published in a university publication: the student's name, address, telephone number, date and place of birth, major field of study, participation in officially recognized activities and sports, weight and height of members of athletic teams, dates of attendance, degrees and awards received, the most recent previous educational agency or institution attended by the student, and other similar information. Relative to such public or directory information, the university shall give public notice of the categories of information which shall be considered public information, and shall allow a reasonable period of time after such notice has been given for a student to inform the university that all of the information designated should not be released without the student's prior consent.

e Direct access to disciplinary files is limited to the staff of the Office of Judicial Affairs and the Office of Legal Affairs, and the dean of students and his or her immediate staff. This section shall not be construed so as to prohibit the Office of Legal Affairs from advising appropriate university offices that demonstrate a legitimate educational interest in the facts and disposition of a particular disciplinary case, nor shall it be construed so as to prohibit the Office of Judicial Affairs from advising any person demonstrating a need to know as to whether a disciplinary file does or does not exist.

f Medical and psychological information is legally confidential and privileged. It will not be released to anyone without the express written authorization of the individual involved. In such cases, the individual must designate what information is to be released and to whom that information is to be released.

g Notwithstanding the provisions of subsections a-f of this section:

- 1** Education records will be released on compliance with a judicial order, or pursuant to any lawfully issued subpoena, upon condition that the student is reasonably notified of all such orders or subpoenas in advance of the compliance therewith by the university.
- 2** Records, or information from records containing personally identifiable information, may be made available to officials of other schools or school systems in which the student seeks or intends to enroll, upon condition that the student be notified of the transfer, receive a copy of the records if desired, and has an opportunity for a hearing to challenge the content of the record.
- 3** Records or information from records containing personally identifiable information may be released in connection with a student's application for or receipt of financial aid.
- 4** Records or information from records may be released to the parents of a dependent student, as defined in Section 152 of the Internal Revenue Code of 1954. The university presumes for this purpose only that all students are independent. The parents of a student have the burden to show dependent status as defined in Section 152 of the Internal Revenue Code of 1954.
- 5** Records or information from records may be released to the categories of persons or institutions designated in Section 438(b)(1)(C), 438(b)(1)(E), and 439(b)(3) of the Family Educational Rights and Privacy Act of 1974, and sections 99.30(a)(2), and 99.31 through 99.36 of the regulations thereto.
- 6** Records or information from records may be released to organizations conducting studies for or on behalf of educational agencies or institutions for the purpose of developing, validating, or administering predictive tests; administering student aid programs; and

improving instruction, if such studies are conducted in such a manner as will not permit the personal identification of students and their parents by persons other than representatives of such organization, and such information will be destroyed when no longer needed for the purposes for which it was released.

7 Records or information from records may be released to accrediting organizations in order to carry out their accrediting functions.

8 Records or information from records may be released to appropriate persons if the knowledge of such information is necessary to protect the health or safety of the student or other persons.

9 The university officials responsible for implementing the Student Records Policy and ensuring compliance with the Family Educational Rights and Privacy Act of 1974 are the vice president for administration with the assistance of the dean of students and the director of legal affairs. The university ombudsman may examine all education records of a student upon authorization by the student or the director of legal affairs.

Record of Access

Each office shall keep with the education records of each student a record which will specifically indicate the legitimate interest that each such person, agency, or organization, other than other school officials and persons designated in the Release of Student Records section above, has in obtaining this information. Such record of access shall be available only to the student, the school official, and his or her assistants who are responsible for the custody of such records, and to persons or organizations authorized to conduct an audit pursuant to the Family Educational Rights and Privacy Act of 1974. The record should include the name of the individual or agency requesting information, reason for the request, date of the request, and the disposition of the request. The office responsible for the records shall, upon a request in writing by the student, provide a copy of the records disclosed and charge the appropriate fees therefore. Education records or information therefrom shall be transferred to a third party only on the condition that such party will not permit any other party to have access to such information without the written consent of the student.

Retention of Records

Each recordkeeping office will establish and make available a reasonable and justifiable policy regarding the retention of records after the separation of the student from the university. Where legal statutes govern retention, such policies shall be in accordance with those statutes.

Holds on Release of Records

Unmet university financial obligations or pending disciplinary cases may result in a hold being placed on the release of student records. The office originating the hold must inform the student in writing that it has initiated such action. Copies of hold notices will be maintained by the originating office or agency and will serve as verification that written notification has been provided to the student.

Incorporation of Federal Law

The Family Educational Rights and Privacy Act of 1974, and the regulations enacted in pursuance thereof, are hereby incorporated by reference into this policy, and to the extent that this policy conflicts with the law and/or regulations, the law and/or regulations shall take precedence.

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Ohio University

Graduate Admissions Application for U.S. Citizens and Permanent Residents

Do not write in this space
App. fee _____ Res. _____

(Please type or print legibly using black ink)

Please complete and return two copies of this application, along with a fee of \$30 for application to a graduate degree program, \$20 for nondegree or transient status, or \$10 for nondegree-to-degree status or application to a second Ohio University graduate degree program. Mail to the Office of Graduate Student Services, Ohio University, Athens OH 45701-2979. Make check or money order payable to Ohio University and attach to application. The application will NOT BE ACCEPTED WITHOUT THE APPLICATION FEE. Application fee is nonrefundable.

1. Personal Information

Name _____ Social Security Number _____
Last First Middle

Former last name(s), if any _____ Male _____ Female _____ Single _____ Married _____

Permanent address _____
Number Street

City State ZIP

County (if Ohio) _____ E-mail _____ Telephone _____
Area code Number

Mailing address (if different from above) _____
Number Street

City State ZIP Telephone _____
Area code Number

Date of birth _____ Place of birth _____ Citizenship _____
Month Day Year City State

If you are a permanent resident, provide a copy of your Permanent Resident Card.

How would you describe your ethnic background? (answer is optional; please check only one.)

___ (01) American Indian or Alaskan native ___ (02) African American/Black not of Hispanic origin
___ (03) Asian American ___ (04) Hispanic ___ (05) Caucasian/White not of Hispanic origin

In which U.S. state were you a legal resident during the past 12 months? _____

Have you ever been convicted of a felony? No ___ Yes ___

2. Academic Information

When do you wish to enter Ohio University?

___ Fall Quarter 20 ___
___ Spring Quarter 20 ___
___ Summer Quarter 20 ___
___ Winter Quarter 20 ___

Indicate which Ohio University campus you wish to attend.

___ Athens ___ Eastern (1)
___ Southern (3) ___ Lancaster (4)
___ Chillicothe (2) ___ Portsmouth Resident
___ Zanesville (6) ___ Credit Center (15)

What will be your graduate major? (Refer to Graduate Programs section of Graduate Catalog) _____

Area of specialization? _____

What degree will you work toward at Ohio University?

___ Master's ___ Nondegree Status: ___ Full-time ___ Workshop (give title) _____
___ Ph.D. ___ Transient ___ Part-time _____

List below all institutions from which you have earned or will earn a degree. Next list all other institutions attended. Use a separate sheet if necessary.

Name of institution	Location	Dates attended	Major area of study	Degree Diploma or Certificate	Date received or expected

Please arrange for each school attended to send two transcripts to the Office of Graduate Student Services, Ohio University, Athens OH 45701-2979. Transcripts should be sent at once. Transcripts for Ohio University students seeking admission to a graduate program will be obtained directly by the Office of Graduate Student Services.

Have you taken graduate courses at Ohio University? Yes ____ No ____ When? _____

Which campus? _____ Did you earn a degree? Yes ____ No ____ Degree and date earned _____

3. Additional Information

Honors or scholarship recognition _____

Teaching or research experience (Describe position(s) held, dates, and location) _____

Nonacademic work experience (Describe position held, dates, and location) _____

Professional or vocational plans _____

Are you presently a full-time contract employee of Ohio University? Yes ____ No ____

Current occupation _____ Date hired _____ City _____ State _____

4. Recommendations

Please have three individuals complete the enclosed recommendations. Since forms must be sent directly to the graduate chair of the department or school to which you are applying, we suggest that you provide each individual with a stamped envelope addressed to the specific department or school. Please list the people who will be submitting recommendations on your behalf.

1. _____

2. _____

3. _____

You will be informed by the department or school to which you apply of any additional supporting materials required.

Ohio University complies with nondiscrimination laws including Title VI of the Civil Rights Act and Title IX of the Education Amendments of 1972.

I certify that the information given in this application is complete and accurate.

Signature _____

Date of submitting application _____

5. Living Arrangements

Direct any correspondence concerning housing to the Director of Housing, Chubb Hall, Ohio University, Athens OH 45701-2979.

Application for Financial Assistance

Type of appointment

Complete if you wish to apply for financial assistance — check one or indicate preference by number.

____ Graduate administrative associateship in _____

____ Graduate research associateship in _____

____ Graduate teaching associateship in major field _____

____ Scholarship (must carry minimum of 15 graduate credit hours) _____

Contact the department or school of your interest for further information on types of appointments available.

Ohio University

Graduate Admissions Application for U.S. Citizens and Permanent Residents

Do not write in this space
App. fee _____ Res. _____

(Please type or print legibly using black ink)

Please complete and return two copies of this application, along with a fee of \$30 for application to a graduate degree program, \$20 for nondegree or transient status, or \$10 for nondegree-to-degree status or application to a second Ohio University graduate degree program. Mail to the Office of Graduate Student Services, Ohio University, Athens OH 45701-2979. Make check or money order payable to Ohio University and attach to application. The application will NOT BE ACCEPTED WITHOUT THE APPLICATION FEE. Application fee is nonrefundable.

1. Personal Information

Name _____ Social Security Number _____
Last First Middle

Former last name(s), if any _____ Male _____ Female _____ Single _____ Married _____

Permanent address _____
Number Street

City State ZIP

County (if Ohio) _____ E-mail _____ Telephone _____
Area code Number

Mailing address (if different from above) _____
Number Street

City State ZIP Telephone _____
Area code Number

Date of birth _____ Place of birth _____ Citizenship _____
Month Day Year City State

If you are a permanent resident, provide a copy of your Permanent Resident Card.

How would you describe your ethnic background? (answer is optional; please check only one.)

____ (01) American Indian or Alaskan native ____ (02) African American/Black not of Hispanic origin
____ (03) Asian American ____ (04) Hispanic ____ (05) Caucasian/White not of Hispanic origin

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Have you ever been convicted of a felony? No _____ Yes _____

2. Academic Information

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____ Zanesville (6) ____ Credit Center (15)

What will be your graduate major? (Refer to Graduate Programs section of Graduate Catalog) _____

Area of specialization? _____

What degree will you work toward at Ohio University?

____ Master's ____ Nondegree Status: ____ Full-time ____ Workshop (give title) _____
____ Ph.D. ____ Transient ____ Part-time _____

List below all institutions from which you have earned or will earn a degree. Next list all other institutions attended. Use a separate sheet if necessary.

Name of institution	Location	Dates attended	Major area of study	Degree Diploma or Certificate	Date received or expected

Please arrange for each school attended to send two transcripts to the Office of Graduate Student Services, Ohio University, Athens OH 45701-2979. Transcripts should be sent at once. Transcripts for Ohio University students seeking admission to a graduate program will be obtained directly by the Office of Graduate Student Services.

Have you taken graduate courses at Ohio University? Yes ____ No ____ When? _____

Which campus? _____ Did you earn a degree? Yes ____ No ____ Degree and date earned _____

3. Additional Information

Honors or scholarship recognition _____

Teaching or research experience (Describe position(s) held, dates, and location) _____

Nonacademic work experience (Describe position held, dates, and location) _____

Professional or vocational plans _____

Are you presently a full-time contract employee of Ohio University? Yes ____ No ____

Current occupation _____ Date hired _____ City _____ State _____

4. Recommendations

Please have three individuals complete the enclosed recommendations. Since forms must be sent directly to the graduate chair of the department or school to which you are applying, we suggest that you provide each individual with a stamped envelope addressed to the specific department or school. Please list the people who will be submitting recommendations on your behalf.

1. _____
2. _____
3. _____

You will be informed by the department or school to which you apply of any additional supporting materials required.

Ohio University complies with nondiscrimination laws including Title VI of the Civil Rights Act and Title IX of the Education Amendments of 1972.

I certify that the information given in this application is complete and accurate.

Signature _____

Date of submitting application _____

5. Living Arrangements

Direct any correspondence concerning housing to the Director of Housing, Chubb Hall, Ohio University, Athens OH 45701-2979.

Application for Financial Assistance

Type of appointment

Complete if you wish to apply for financial assistance — check one or indicate preference by number.

____ Graduate administrative associateship in _____

____ Graduate research associateship in _____

____ Graduate teaching associateship in major field _____

____ Scholarship (must carry minimum of 15 graduate credit hours) _____

Contact the department or school of your interest for further information on types of appointments available.

Recommendation for Graduate Admission

Graduate Applicant

Complete this section as well as the recommendation review section at the bottom of this page. Please print or type. Then give one of these forms to each of three people who will be providing a recommendation for you. Have them return this form directly to the graduate chair of the department or school to which you are applying.

Applicant's Name _____ Social Security # _____

Department/School to which you are applying _____

Person Submitting Recommendation

In the space below, please state your professional relationship to the applicant and provide information about his or her scholarly achievement, fitness for graduate study, personal qualities, character, and other information that you consider pertinent (use additional paper if necessary). Please return this form to the graduate chair of the department or school indicated.

Please print name _____ Position _____

Signature _____ Institution _____

Date _____ Address _____

Mail to: Graduate Chair, _____, Ohio University, Athens OH 45701-2979

Recommendation Review

In compliance with Ohio University policy and with the Family Educational Rights and Privacy Act of 1974, the contents of this recommendation may be reviewed by the student if both parties give their consent.

I (student) request that this recommendation be:

____ Confidential (open only to academic personnel)

____ Open (I may review)

Student's Signature

____ I agree

____ I do not agree to the above designation.

Signature of Person Providing Recommendation

Ohio University

Recommendation for Graduate Admission

Graduate Applicant

Complete this section as well as the recommendation review section at the bottom of this page. Please print or type. Then give one of these forms to each of three people who will be providing a recommendation for you. Have them return this form directly to the graduate chair of the department or school to which you are applying.

Applicant's Name _____ Social Security # _____

Department/School to which you are applying _____

Person Submitting Recommendation

In the space below, please state your professional relationship to the applicant and provide information about his or her scholarly achievement, fitness for graduate study, personal qualities, character, and other information that you consider pertinent (use additional paper if necessary). Please return this form to the graduate chair of the department or school indicated.

Please print name _____ Position _____

Signature _____ Institution _____

Date _____ Address _____

Mail to: Graduate Chair, _____, Ohio University, Athens OH 45701-2979

Recommendation Review

In compliance with Ohio University policy and with the Family Educational Rights and Privacy Act of 1974, the contents of this recommendation may be reviewed by the student if both parties give their consent.

I (student) request that this recommendation be:

___ Confidential (open only to academic personnel)

___ Open (I may review)

Student's Signature

___ I agree

___ I do not agree to the above designation.

Signature of Person Providing Recommendation

Ohio University

Recommendation for Graduate Admission

Graduate Applicant

Complete this section as well as the recommendation review section at the bottom of this page. Please print or type. Then give one of these forms to each of three people who will be providing a recommendation for you. Have them return this form directly to the graduate chair of the department or school to which you are applying.

Applicant's Name _____ Social Security # _____

Department/School to which you are applying _____

Person Submitting Recommendation

In the space below, please state your professional relationship to the applicant and provide information about his or her scholarly achievement, fitness for graduate study, personal qualities, character, and other information that you consider pertinent (use additional paper if necessary). Please return this form to the graduate chair of the department or school indicated.

Please print name _____ Position _____

Signature _____ Institution _____

Date _____ Address _____

Mail to: Graduate Chair, _____, Ohio University, Athens OH 45701-2979

Recommendation Review

In compliance with Ohio University policy and with the Family Educational Rights and Privacy Act of 1974, the contents of this recommendation may be reviewed by the student if both parties give their consent.

I (student) request that this recommendation be:

____ Confidential (open only to academic personnel)

____ Open (I may review)

Student's Signature

____ I agree

____ I do not agree to the above designation.

Signature of Person Providing Recommendation

Notes

Notes

Notification Card

Ohio University Athens OH 45701-2979

If you want to receive notification of the receipt of your application materials, please apply a postage stamp to the front of this card, write your name and mailing address on the lines provided, and return the card in an envelope with your completed application form to the Office of Graduate Student Services, Ohio University, Athens OH 45701-2979.

_____ We have received your application and fee for admission.

_____ We have received your application for admission but the \$30 application fee was not enclosed. Your application will not be processed or reviewed until the fee is received.

Place
Stamp
Here

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